CONSTRUCTION NEWS

Suppl nt to ENGINEERING NEWS.
New York, May 18, 1905.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S), and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

Bids close	Work.	Place.	On file.	See issue.
May				
18	Sewer system	Mt. Carmel, Pa.	S	4-27
19	Drainage work	Havana, Ill	S	5-11
19	Road	West Boylston, Mass	P. & S.	5-11
•31	Court-house	Baltimore, Md	P. & S.	6-11
•24	Bulkhead	Baltimore, Md	P. & S	5- 4
June				
•1	Irrigation canals	Glendive, Mont.	P & S	4- 6
•1	Telephone system	Glendive, Mont.	S	5- 4
5	Sidewalks, granolithic	Grenada, Miss.	S	5-18
•6	Water tunnel	Toronto, Ont	P. & S	5- 4
10	Court-house	Plaquemine, La	P & S	5- 4
•15	Irrigation work	Hazen, Nev	S	5- 4
•15	Pathfinder dam	Denver, Colo	P & S	5- 4
•15	Irrigation canals	Boise, Idaho	P & S	4-27
•15	Telephone line	Boise, Idaho	S	4-27
24	Reservoir (Cuba)	Washington, D. C.	S	5-18
•28	Irrigation canals	Billings, Mont.	P & S	5- 4
Aug.				
26	Coaling plant	Philippines	S	5- 4
Sept.				
1	Steel manufacture	New S. Wales.	S	3-23

•Work advertised in Engineering News.

LIST OF CONTRACTS PENDING.

Bids close. Work. Place. See issue.

LIGHT, HEAT AND POWER PLANTS.

May 20. Lighting plant, Washington, D. C.......May 4
Advertised, Eng. News, May 4 to 18.
May 20. Power plant, Middleburg, Pa............May 18
May 22. Public lighting, Washington, D. C.......May 18
Adverised, Eng. News, May 18.
May 31. Heating, plant, etc., Washington, D. C..May 4
Advertised, Eng. News, May 4 to 25.
June 6. Street lighting, Shelbyville, Tenn........May 11
June 8. Gas supply, Newport, Ky.................Apr. 27

BRIDGES.

May 19. Bridge, iron, Mt. Carroll, Ill.............Apr. 27
May 20. Bridge, steel, Mitchell, S. Dak...........May 4
May 20. Bridges, Rosepine, La.....................May 4
May 20. Bridge, Lenox, Mass.......................May 11
May 22. Bridges, steel, New Rockford, N. Dak..May 11
May 22. Bridge, San Bernardino, Cal.............May 4
May 22. Bridge, Fredericton, N. B................May 18
May 22. Bridges, Schuyler, Neb....................May 18
May 22. Concrete bridge, Oakland, Cal...........May 18
May 23. Iron fascias, Boston, Mass...............May 18
May 23. Bridge, steel, Buffalo, Minn.............May 11
May 23. Culvert, Toledo, O.......................May 11
May 24. Bridge, Ellendale, N. Dak................May 4
May 25. Bridge, steel, West Newton, Pa..........May 11
May 25. Bridge, Zanesville, O....................May 11
May 25. Abutments, etc., Boston, Mass...........May 18
May 26. Bridge, Reading, Pa.....................May 18
Advertised, Eng. News, May 18.
May 26. Bridges, Tacoma, Wash...................May 11
June 1. Bridges, steel, Springfield, Mo..........Apr. 20
June 6. Bridge, Dayton, O........................May 11
Advertised, Eng. News, May 11 to June 8.

BUILDINGS.

May 18. High-school, Milwaukee, Wis............May 18
May 19. School, New Haven, Conn.................May 11
May 20. Court-house, Hartford City, Ind.........May 11
May 20. Masonic Temple plans, Brooklyn, N. Y..Mar. 30
May 20. Prison addition, Trenton, N. J..........Apr. 27
May 20. Light Fixtures, Ft. Hancock, N. J......May 4
May 22. School, Austin, Pa.......................May 4
May 22. Officers' quarters, Washington, D. C....Apr. 27
Advertised, Eng. News, Apr. 27 and May 4.
May 22. Barracks, Prescott, Ariz..................Apr. 27
Advertised, Eng. News, Apr. 27 to May 11.
May 22. Schools, New York, N. Y...................May 11
May 22. School, South St. Paul, Minn............May 18
May 22. School, Ashland, Wis......................May 18
May 23. Schools, Newark, N. J.....................May 18
May 23. Heating & lighting, Cape Girardeau, Mo. May 18
May 23. Machine shop (Mfg. Pl.), Newport, R. I. May 11
Advertised, Eng. News, May 11 and 18.
May 23. Post-office, Owosso, Mich................Apr. 20
May 23. Hospital, Raleigh, N. C..................May 4
May 24. Heating apparatus, Pekin, Ill.............May 4
May 24. Hospital, Jersey City, N. J..............May 11
May 24. School-house, Cleveland, O...............May 18
May 25. School, Tipton, Ind.......................May 18
May 25. Church, Indianapolis, Ind................May 4
May 25. Post-office, Geneva, N. Y.................Apr. 20
May 25. Oil house, Delaware City, Del............Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 25. Hospital, Ft. Riley, Kan.................May 4
May 26. Wiring, Kankakee, Ill.....................May 4
May 26. Heating plant, Indianapolis, Ind.........May 11
May 26. School, Tipton, Ind........................May 11
May 27. Buildings, Vancouver Barracks, Wash..May 4
Advertised, Eng. News, May 4 to 25.
May 27. Printing plant (Mfg. Plts.), Topeka, Kan. May 11
May 27. School, Isanti, Minn......................May 18
May 27. Hospital, Ft. Sheridan, Ill...............May 18
Advertised, Eng. News, May 18 and 25.
May 29. Schools, New York, N. Y.................May 11
May 29. Court-house and jail, Norman, Okla....May 4
May 29. Heating apparatus, Kankakee, Ill........May 4
May 31. Post-office, Allentown, Pa...............Apr. 27
Advertised, Eng. News, Apr. 27 and May 4.
May 31. Court-house, repair, Baltimore, Md......May 11
Advertised, Eng. News, May 11 to June 1.
May 31. Light-house, etc., Philadelphia, Pa......May 11
May 31. Buildings, Shiprock, N. Mex.............May 11
May 31. School, Lima, N. Y.......................May 18
May 31. Buildings, Delaware City, Del..........May 18
Advertised, Eng. News, May 18.
May 31. Court-house, Darlington, Wis............May 18
May 31. Heating plant, etc., Washington, D. C...May 18
June 1. Bank building, Knoxville, Tenn..........May 11
June 1. Post-office, Little Falls, N. Y..........May 4
June 2. Building, Washington, Ind...............May 11
June 2. Buildings, Tulalip, Wash................May 11
June 5. Post-office, Crawfordsville, Ind.........May 4
Advertised, Eng. News, May 4 and 11.
June 6. Post-office, Rockhill, S. C...............Apr. 27
Advertised, Eng. News, Apr. 27 and May 4.
June 7. Post-office, Reno, Nev....................May 11
June 7. Buildings, Washington, D. C.............May 11
Advertised, Eng. News, May 11 to June 8.
June 8. Post-office, Amesbury, Mass..............May 11
June 10. Court-house, Plaquemine, La............May 4
Advertised, Eng. News, May 4.
June 12. Capitol plans, Boise, Idaho..............Apr. 13
June 15. Court-house plans, New Orleans, La......Feb. 23
July 3. Court-house and jail, Leesville, La......May 11

WATER SUPPLY AND IRRIGATION.

May 18. Water-works, Marshall, Tex..............May 11
May 18. Pumps, motors, etc., Oswego, N. Y......May 4
Advertised, Eng. News, May 4 and 11.
May 18. Boiler, pump, etc., Ft. Assinniboine, Mont. Apr. 27
Advertised, Eng. News, Apr. 27 to May 18.
May 20. Water intake, etc., Oswego, N. Y......Apr. 27
Advertised, Eng. News, Apr. 27 to May 18.
May 22. Water tanks, Fort De Soto, Fla..........May 11
May 25. Boilers, Nashville, Tenn..................May 11
May 27. Steam pumps, pipe, etc., Wash., D. C...May 4
Advertised, Eng. News, May 4 to June 1.
May 27. Water mains, road, Portland, Me........May 18
May 27. Boilers, Brantford, Ont..................May 18
May 29. Pumping engine, Woonsocket, R. I......May 18
Advertised, Eng. News, May 18 and 25.
May 29. Water-works, sewers, Strathcona, Alta..May 11
May 30. Pipe laying, New Market, N. H..........May 18
May 31. Reservoir, New York, N. Y..............May 18
June 1. Irrigation canals, etc., Glendive, Mont....Apr. 6
Advertised, Eng. News, Apr. 6 to May 18.
June 2. Engines and boilers, Cincinnati, O.......May 4
June 2. Water-works, Bristol, Vt.................May 18
Advertised, Eng. News, May 18 and 25.
June 5. Laguna dam, Los Angeles, Cal...........May 4
Advertised, Eng. News, May 4 to 25.
June 6. Water tunnel, etc., Toronto, Ont........May 4
Advertised, Eng. News, May 4 to 25.
June 15. Irrigation dam, Denver, Colo............May 4
Advertised, Eng. News, May 4 to June 1.
June 15. Irrigation work, bridge, Hazen, Nev....May 4
Advertised, Eng. News, May 4 to June 1.
June 15. Irrigation canals, Boise, Idaho..........Apr. 27
Advertised, Eng. News, Apr. 27 to June 8.
June 28. Irrigation canal, Billings, Mont........May 4
Advertised, Eng. News, May 4 to June 15.
June 28. Pumping station, etc., Billings, Mont....May 4
Advertised, Eng. News, May 4 to June 15.

SEWERAGE.

May 19. Sewer system, Puyallup, Wash..........May 4
May 19. Sewer, Peterboro, Ont....................May 11
May 19. Sewer, Steubenville, O...................May 11
May 20. Pipe sewers, Marion, S. C...............May 11
May 22. Sewers, New Rochelle, N. Y............May 18
May 23. Sewers, New Haven, Conn...............May 18
May 23. Sewer, Painesville, O....................May 18
May 24. Sewer, Danbury, Conn....................May 18
May 24. Sewer, Marion, O..........................May 18
May 25. Sewers, Ballston Spa, N. Y..............May 18
May 25. Sewers & culverts, Cleveland, O.........May 18
May 25. Catchbasins, etc., Reading, Pa...........May 18
May 25. Sewers, North Platte, Neb.................May 4
Advertised, Eng. News, May 4 to 25.
May 29. Sewers, Cincinnati, O....................May 11
May 29. Sewer and septic tank, Pipestone, Minn..May 11
May 29. Sewers, etc., Strathcona, Alta...........May 18
May 31. Sewers, Merrill, Wis.......................May 18
May 31. Sewerage system, Washington, D. C....May 18
May 31. Sewer, Pine Bluff, Ark...................May 18
June 1. Sewers, Darlington, S. C..................May 11
Advertised, Eng. News, May 11 and 18.
June 5. Sewerage, Plainfield, N. J................May 11

STREETS AND ROADS.

May 19. Road repair, Richmond, Va..............May 4
May 19. Paving, Buffalo, N. Y....................May 11
May 19. Road, West Boylston, Mass..............May 11
Advertised, Eng. News, May 11.
May 20. Grading, Washington, D. C...............May 4
Advertised, Eng. News, May 4 and 11.
May 20. Concrete walks, Ft. Mackenzie, Wyo....Apr. 27
May 22. Block paving, Bluefield, W. Va.........Apr. 27
Advertised, Eng. News, Apr. 27 and May 4.
May 22. Macadamizing, Wyoming, O...............May 4
May 22. Brick paving, Canton, O.................May 11
May 22. Paving, Elmira, N. Y......................May 11
May 22. Paving, vitrified brick, Binghamton, N.Y. May 11
Advertised, Eng. News, May 11 and 18.
May 22. Paving, brick, Little Rock, Ark...........May 11
May 22. Sidewalks, Petrolia, Ont...................May 18
May 22. Paving, Toledo, O..........................May 18
May 22. Cement sidewalks, Detroit, Mich..........May 18
May 22. Paving, etc., Red Jacket, Mich............May 18
May 22. Paving, asphalt, New Orleans, La.......May 18
May 23. Paving, Syracuse, N. Y....................May 18
May 23. Roads, Warren, O..........................May 18
May 23. Paving and curbing, Painesville, O....May 18
May 23. Paving, Madisonville, O..................May 18
May 23. Grading, Cleveland, O.....................May 11
May 24. Sidewalks, Brooklyn, N. Y................May 11
May 24. Granolithic walks, Ft. Leavenworth, Kan. May 18
May 25. Paving, Freeport, Pa.......................May 18
Advertised, Eng. News, May 18.
May 25. Concrete sidewalks, Brantford, Ont......May 18
May 25. Paving and grading, Independence, Mo...May 18
May 26. Sidewalks, Arnprior, Ont..................May 11
May 27. Roads and walks, Oswego, N. Y........May 4
Advertised, Eng. News, May 4 to June 1.
May 29. Paving, asphalt, Cincinnati, O...........May 11
May 29. Grading, graveling, West Carrollton, O..May 18
May 31. Paving and curbing, Washington, D. C...May 11
May 31. Grading, etc., San Francisco, Cal........May 11
June 1. Paving, brick, Fremont, O.................Mar. 16
June 2. Crushed stone and gravel, Cincinnati, O..May 11
June 5. Paving, asphalt, Cincinnati, O...........May 11
June 6. Paving, vitrified brick, Waterbury, Conn..May 11
June 6. Paving, Amsterdam, N. Y..................May 11
June 6. Roads, Bloomfield, Ind....................May ..
June 16. Asphalt plant, New Orleans, La..........May 11
Advertised, Eng. News, May 11 to June 22.

MISCELLANEOUS CONTRACTS.

May 19. Drainage work, Havana, Ill..............May 11
Advertised, Eng. News, May 11.
May 19. Lumber, Washington, D. C..............Apr. 20
Advertised, Eng. News, Apr. 20 to May 25.
May 19. Pier work, Cleveland, O.................Apr. 20
Advertised, Eng. News, Apr. 20 to May 18.
May 19. Jetty work, Savannah, Ga...............Apr. 20
Advertised, Eng. News, Apr. 20 to May 18.
May 19. Lock gates, Pittsburg, Pa...............Apr. 27
May 18. Wharf work, San Francisco, Cal........May 4
May 20. Dam top, Pittsburg, Pa...................Apr. 27
May 20. Dam construction, Rock Island, Ill......Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 20. Breakwater, Buffalo, N. Y...............Apr. 20
Advertised, Eng. News, Apr. 20 to May 25.
May 20. Dredging, New London, Conn.............May 4
Advertised, Eng. News, May 4 to 25.
May 22. Pier work, Buffalo, N. Y.................Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 22. Dredging, Cleveland, O.................Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 22. Ditch, Roseau, Minn.......................May 11
May 22. Fire engines, New York, N. Y..........May 18
May 22. Docking, Port Colborne, Ont............May 18
May 22. Pier work, New York, N. Y..............May 18
May 22. Pile drivers, etc., New York, N. Y....May 18
May 22. Clearing, grubbing, Burlington, Vt......May 18
May 22. Hoisting engine, San Francisco, Cal....May 18
May 23. Revetment, National Soldiers' Home, Va. May 18
May 23. Tile, excavation, etc., Farmersville, Ill..May 18
May 23. Limestone, cement, etc., Wash., D. C...May 11
May 23. Dredging, Newport, R. I...............Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 23. Rock removal, Newport, R. I............Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 23. Breakwater repairs, Newport, R. I......Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 23. Machine tools, Washington, D. C........Apr. 20
May 24. Pipe, pipe fittings, etc., Wash., D. C......May 4
Advertised, Eng. News, May 4 to 25.
May 24. Bulkhead, Baltimore, Md..................May 4
Advertised, Eng. News, May 4 to 25.
May 24. Retaining wall, Philadelphia, Pa........May 11
May 24. Levee work, Varner, Ark..................May 18
May 25. Wharf work, New Campbellton, N. S....May 18
May 25. Wreck removal, Cleveland, O............May 18
May 25. Railway, Asheville & Craggy Mt........May 11
May 25. Levee work, Memphis, Tenn, ...Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 26. Dredging, Buffalo, N. Y...................Apr. 27
Advertised, Eng. News, Apr. 27 to May 25.
May 27. Lock, Pittsburg, Pa.......................May 4
Advertised, Eng. News, May 4 to 25.
May 29. Stone superstructure, Buffalo, N. Y....May 4
Advertised, Eng. News, May 4 to June 1.
May 29. Dredging, Portland, Me.................May 4
Advertised, Eng. News, May 4 to June 1.
May 29. Lock gates, etc., Nashville, Tenn........May 4
Advertised, Eng. News, May 4 to June 1.
May 29. Lamp-shop, Tompkinsville, N. Y........May 4
Advertised, Eng. News, May 4 and 11.
May 29. Breakwater, Rondeau, Ont...............May 11
May 29. Approach, etc., New Orleans, La.........May 11
May 29. Landing pier, Peel Head Bay, Que......May 11
May 29. Excavation, etc., Boston, Mass...........May 18
May 29. Garbage removal, Bradley Beach, N. J..May 18
May 30. Dredge work, Dover, Ont.................May 18
May 30. Steel shed, New Orleans, La.............May 11
Advertised, Eng. News, May 11 and 18.
May 31. Dump carts, wagons, etc., Wash., D. C..May 11
May 30. Refuse destructor, etc., New South Wales. Apr. 27
May 31. Dikes, Cincinnati, O......................May 4
May 31. Dredge, Galveston, Tex...................May 4
Advertised, Eng. News, May 4 to June 1.
May 31. Dredging, Mobile, Ala....................May 4
Advertised, Eng. News, May 4 to June 1.
May 31. Light-house, Philadelphia, Pa...........May 4
Advertised, Eng. News, May 4 and 11.
May 31. Book stacks, Washington, D. C........May 18
Advertised, Eng. News, May 18 and 25.
May 31. Levee work, Vicksburg, Miss...........May 18
Advertised, Eng. News, May 18 and 25.
May 31. Iron, spikes, etc., Columbus, O..........May 18
Advertised, Eng. News, May 18.
June 1. Telephone system, Glendive, Mont......May 4
Advertised, Eng. News, May 4 to June 1.
July 1. Street Railway, Chicago, Ill..............Apr. 13
Advertised, Eng. News, Apr. 13 to May 11.
June 2. Excavation, Grand Rapids, Mich.........May 4
Advertised, Eng. News, May 4 to 25.
June 5. Timber, Nashville, Tenn...................May 4
Advertised, Eng. News, May 4 to June 1.
June 5. Pier work, Duluth, Minn..................May 11
Advertised, Eng. News, May 11 to June 15.
June 5. Dredging, Cleveland, O...................May 11
Advertised, Eng. News, May 11 to June 15.
June 5. Dredging, Wilmington, Del...............May 11
Advertised, Eng. News, May 11 to June 15.
June 6. Machine tools, Washington, D. C........May 11
June 6. Nuts, spikes, etc., Washington, D. C....May 11
June 6. Excavation, Buffalo, N. Y.................May 11
Advertised, Eng. News, May 11 to June 15.
June 8. Jetty work, Cleveland, O..................May 11
Advertised, Eng. News, May 11 to June 15.
June 8. Protection dikes, Savannah, Ga..........May 11
Advertised, Eng. News, May 11 to June 15.
June 12. Dredging, Geneseo, Ill....................May 11
Advertised, Eng. News, May 11 to June 1.
June 15. Telephone line, Boise, Idaho............Apr. 27
Advertised, Eng. News, Apr. 27 to June 8.
June 15. Wharf, roadway, etc., Hawaii............May 4
July 10. Steam dredge, Spain......................Apr. 27
July 17. Railway construction, Africa ....Apr. 27
Aug. 26. Coaling plant, Philippines................May 4
Sept. 1. Steel manufacture, New South Wales..Mar. 23
Advertised, Eng. News, Mar. 30 to June 29.
Apr. 2, 1906. Port works, Chile......................Apr. 27
Advertised, Eng. News, Apr. 27 to Jan 25.

RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

APPOMATTOX & CHARLOTTE.—Incorporated in West Virginia, to build a railway from Appomattox to Drakes Bridge. Capital stock, $5,000. B. P. Eggleston of Drakes Bridge is Pres. and S. I. Ferguson of West Appomattox, is Vice-Pres. and Secy.

ALBANY & NORTHERN.—An extension from Albany, Ga., to Colquitt, via Newton, is under consideration. This new line would be 48 miles long. Company now operates 35 miles of railway. Company's charter will be amended to cover this construction. J. S. Crews is Gen. Mgr., Albany, Ga.

APALACHICOLA NORTHERN.—J. H. Trump, Apalachicola, Fla., writes us that this railway will be 125 miles long and will connect St. Joseph Bay, Apalachicola, River Junction and Quincy, Fla., and Bainbridge, Ga. Survey is completed to River Junction. Right-of-way is obtained and capital secured. Company doing its grading at present. Charles B. Duffy is Pres. and A. G. Dancy is Ch. Engr., Apalachicola, Fla.

BELCHER MOUNTAIN.—This company has been incorporated in Washington. Capital is $100,000. A steam railroad is to be built from Lambert, Wash., to the Belcher mine, about ten miles distant. D. F. Anderson, and Ralston McCaig, of Rosalia, Wash.; F. L. Harper, of Republic, Wash., and C. H. McHaughton, of Winnipeg, Man., are the incorporators.

BONNERVILLE & SOUTHWESTERN.—A charter has been granted to this company, with $1,000,000 capital, to build a line from a point on the Kansas City, Fort Scott & Memphis Ry., in Craighead County, through the counties of Craighead, Poinsett, Jackson and Woodruff, to a point on the Choctaw, Oklahoma & Gulf Ry., a distance of 55 miles. The directors are: A. J. Davidson, C. R. Gray, L. F. Parker, W. B. Drake of St. Louis; Vernon Sharp, Charles D. Frierson, F. G. Taylor, Gordon Frierson of Jonesboro, and Ernest Ritter of Marked Tree, Ark.

BREMEN & SOUTHWESTERN.—L. B. Parker, Pres. and Mgr., Bremen, Ga., informs us that sub-bids will be received by BREMEN & SOUTHWESTERN CONSTRUCTION CO., between June 1 and June 15, for building first 15 miles of the proposed 40-mile railway. The line will pass through Mt. Zion, Burwell and Bowden, Ga., and Ranburne, Goldridge and Newell, Ala., to a point near Wedowie, Ala., where connection will be made with the lines of the Southern Ry. and Central Ry. of Georgia. Capital is secured. Surveys will be completed by June 1, to Bowden. E. T. Reveley, Bremen, is Ch. Engr. H. W. Gardner is Secy.

BOYNE CITY, GAYLORD & ALPENA.—This company, was recently incorporated in Michigan, with $1,000,000 capital, to build a steam road from Boyne City east through Boyne Falls, Gaylord and Atlanta to Alpena, Mich., about 110 miles. The first 28 miles to Gaylord, it is planned to have in operation by the first of July. The road is already completed and in operation ten miles, through Boyne Falls. Part of the road will be built by the company's forces and contracts for the rest will be let at once. The road will cross the Grand Rapids & Indiana Ry. north of Elmira and the Michigan Central Ry. at Gaylord. William H. White is President and N. J. Tubbs, Ch. Engr., at Boyne City, Mich.

CALIFORNIA.—The Pacific Coast Borax Co. will build a railroad from Goldfield, Nev., to Gaggett, Cal. The line is said to have been surveyed. F. M. Smith is Pres. and Gen. Mgr. of Co., Sansom St., San Francisco, Cal.

CANADIAN PACIFIC.—This company will secure charter for the Georgian Bay & Seaboard branch to connect with the Quebec line.

CANADIAN PACIFIC.—Company will spend $50,000 at Richford, Vt., in straightening main line and in improving freight facilities.

CAROLINA & PEE DEE.—It is reported that the Carolina & Pee Dee Railroad & Developing Co. will build a railroad from High Point to Wadesboro, N. C. M. L. Jones, of High Point, and T. L. Caudle, of Wadesboro, are interested.

CHARLESTON, VIRGINIA & OHIO RIVER.—This company has been granted a charter in North Carolina. The principal office will be at Morganton, N. C. Capital is $2,200,000. The line is to extend from Charleston, S. C., to Newton, N.C., 250 miles. The incorporators are: W. C. Ervin, H. L. Milner and E. P. Tate, of Morganton, N. C.; W. T. Hunter, Joseph F. Gowan and Robert Regney, of New York.

CHICAGO & NORTHWESTERN.—A short line is to be built between Chicago, Ill., and Milwaukee, Wis. Improvements on line between Sheboygan and Manitowoc, Wis., will cost $750,000. E. C. Carter, Chicago, is Ch. Engr.

CHICAGO & EASTERN ILLINOIS.—The PATTON & GIBSON CO., of Pittsburg, was awarded contract for the following improvements: Grading and revision of the line between Chicago Heights and Momence; masonry and grading for third track and fourth-track improvement, grade reductions at Steger and Goodenaw, and a change of line or cut-off at Beecher, Ill. The total amount of grading involved will approximate about 1,000,000 yards. It is to be completed by early fall.

CUMBERLAND RIVER & NASHVILLE.—This company will build a railway, 95 miles long, from Corbin, Ky., to Tennessee state line. It will run through Burnside, Monticello and Albany. From Corbin to Monticello, 63 miles, the line is surveyed. Contract for building 20 miles has been awarded to the KENTUCKY RAILWAY CONSTRUCTION CO., of which L. D. Drake, Cincinnati, O., is President. S. Woodward is Pres., Carlisle Bldg., Cincinnati, O.

COLORADO & SOUTHERN.—A meeting of the stockholders will be held in Denver on June 15 to vote upon the proposal of the board of directors to create a $100,000,000 refunding mortgage. The directors will follow substantially the plans for the extension of the road which were laid down before Governor McDonald vetoed the bill, allowing the Colorado & Southern to acquire the Fort Worth & Denver City and other properties voted on April 27.

It is announced by the company that a line will be built from Black Hawk to Apex, Colo., seven miles. It will cost $75,000.

CENTRAL OF GEORGIA.—The Columbus-Greenville line will be extended from Greenville to Newnan, Ga., 18 miles, and will be made standard-gage.

DENVER, NORTHWESTERN & PACIFIC.—A report from Denver, Colo., dated May 7, states that United States District Attorney Earl M. Cranston has secured a temporary injunction in the Federal Court against David H. Moffat and the Colorado & Utah Construction Co., prohibiting them from building the Denver Northwestern & Pacific Railroad through Gore Canyon, on the line of the new road in Middle Park. Gore Canyon is said to be an important site for a huge dam.

DES MOINES, IOWA FALLS & NORTHERN.—President E. S. Ellsworth, Iowa Falls, Ia., announces that an extension north from Iowa Falls is under consideration. W. J. Souder is Supt. Tentative surveys have been run for this extension as follows: One line to Charles City, Ia., via Dumont and Greene; another line to Albert Lea, via Latimer, Thornton and Clear Lake, and a third to Mason City via Hampton. When the surveys are all completed, decision will be made as to which line will be selected. Contract, it is said, will be let on or before June 1.

DENVER, ENID & GULF.—Edward L. Peckham, vice-Pres. and Gen. Mgr., Enid, Okla., has announced that he has been authorized by directors to spend $1,000,000 on new construction this year. The company now operates 70 miles of line between Enid and Guthrie, Okla. A route from Guthrie to Oklahoma City is now being surveyed. Work on the extension from Enid to Kiowa, Kan., is in progress, the grading being completed to Avard, Okla. Both Guthrie and Oklahoma City have made offers to the company to locate the terminals in those cities.

ERIE.—On May 22 the Street and Water Board of Jersey City will give a public hearing on plans of this company for new terminal in Jersey Ciy, which is to cost $8,000,000. The use of certain city streets is asked.

The line between Youngstown, O., and Salamanca, N. Y., will be built this summer, it is announced.

This company will spend large amount of $20,000,000 new stock for a new station and terminal improvements at Chicago. J. M. Graham, Fourth Vice-Pres., is in charge of construction projects, 21 Cortlandt St. F. L. Stuart, New York, is Ch. Engr.

GREAT SOUTHERN.—Immediate construction of this railway from The Dalles, Ore., through Dufur to Bend. John Heimrich is Pres., and Julius I. Meier, Secy., at Portland, Ore. At first it is proposed to build forty-five miles of railway. Extensions into Washington and California are planned.

GREAT WESTERN CONSTRUCTION & DEVELOPMENT CO.—This company has been incorporated in Colorado to build a railroad from the coal fields of Archuleta County to a connection with the Denver & Rio Grande Ry., a distance of 40 miles. Capital stock, $1,000,000. Directors: George S. Eltsun, Judge W. S. Morris, O. E. Hemenway, H. P. Knight, M. Greenburg, John B. Orris, of Colorado Springs; O. K. Mullins, of Kansas City, Mo., and George E. de Meritte, of Boston.

HARRISBURG RY.—Company has been incorporated in Illinois to build a railway from the eastern boundary of Saline County westward through the counties of Saline and Williamson to Harrisburg, Marion, Herrin, Carterville and Johnston City, and thence to the western boundary line of Williamson County. The incorporators and first board of directors are Arthur W. Underwood, of Evanston, and Nathan S. Smyser, M. S. Somerville, Robert J. Devine and Nelson Thomason, Jr., of Chicago. Capital stock is $50,000.

IOWA CENTRAL.—A. E. Clark, Minneapolis, Atty. for company, has announced that an extension from Oskaloosa to Des Moines, Ia., will be built. Howard G. Kelley, Minneapolis, is Ch. Engr.

KENTUCKY.—We are informed that location surveys are being made by the Clearfield Lumber Co. for a railroad from Morehead, Ky., via Morgan Run and Lower Lick, to Paragon, and probably to West Liberty. A. W. Lee is Pres., Clearfield, Pa. E. W. Hess, Clearfield, Pa., is Engr.

LOUISVILLE & NASHVILLE.—A branch line will be built soon, it is stated, from La Follette to Cumberland Gap, Tenn. W. H. Courtney, Louisville, Ky., is Ch. Engr.

LOUISIANA & ARKANSAS.—G. Knobel, Ch. Engr., Jena, La., informs us that work of constructing a 35-mile extension from Jena to Alexandria has been started. William Buchannon, Texarkana, Ark., is Pres.

LOUISIANA & WESTERN.—A 75-mile extension will be built from Lake Charles, La., north. Frank Shutte, acting-Asst. Ch. Engr., at Lake Charles, is in charge of survey. E. B. Cushing, New Orleans, is Gen. Supt.

MANISTEE & GRAND RAPIDS.—A new line will be built from Marion to Gladwin, Mich., 52 miles. Max Toltz, Manistee, Mich., is Vice-Pres. and Gen. Mgr.

MARQUETTE & SOUTHEASTERN.—McDONELL BROS., of Grand Rapids, Mich., have been awarded contract for clearing and grading right-of-way for the 25-mile branch line from Marquette to Bigbay, Mich. The line will follow the original survey made five years ago, modified by minor changes. This work will cost $300,000, exclusive of rolling stock and station buildings. R. C. Young, Marquette, is Ch. Engr.

MONTE NE.—We are informed that stock is being sold for an extension of this 5-mile railway owned by W. H. Harvey, Monte Ne, Ark. Capital stock will be increased to $500,000. The extension will be from 30 to 200 miles long. Estimated cost of construction will be $15,000 a mile. Surveys have been made in southeasterly direction toward Little Rock and westerly to Gentry and Siloam Springs. W. N. Veirs, Springfield, Mo., may be addressed for details.

MISSOURI, ARKANSAS & SOUTHWESTERN.—It is announced that work will be begun soon on construction of this railroad. J. M. Trimble, of Batesville, Ark., is interested. This company was recently incorporated with a capital stock of $2,000,000. Line is to extend from Batesville to Black Rock, Ark., a distance of 48 miles. It is to be in operation within less than a year. Right-of-way has been secured over the entire distance, and the capital is said to have been secured for building the line without issuing bonds.

NEW YORK, NEW HAVEN & HARTFORD.—The New York "Tribune" states that this company may complete what is known as the Ridgefield and New York Ry., the original survey for which was made in 1870. A resurvey will be made. The line runs from Port Chester, through Pound Ridge and Lewisboro, N. Y., Greenwich, New Canaan, Ridgefield and Danbury, Conn.

NEW HAMPSHIRE.—The Great Eastern Paper Co., of Portsmouth, N. H., will build a railway for logging purposes from Lincoln, where it will connect with the Pemigewasset Valley branch of the Boston & Maine Ry., to Thornton Grove, a distance of about 19 miles; also from a point north of Bartlett, on the Maine Central Ry., up Sawyer's River, a distance of about 35 miles. The estimated cost of both is $100,000. Charles H. Green, Asst. Gen. Mgr., will let contracts.

NEVADA & CALIFORNIA.—This company has been incorporated in California with $15,000,000 capital stock. The line will be about 430 miles long, from Hazen, Nev., through Churchill, Lyon and Esmeralda counties in Nevada, Mono, Inyo and Kern counties in California, terminating at Mojave. This railway is said to be a Southern Pacific Ry. Co. project. William Hood, Ch. Engr. S. P. Ry.; William F. Herrin, Ch. Counsel; Nicholas T. Smith, Treas., S. P. Ry. Peter F. Dunne and Joseph L. Willicut, all of San Francisco, Cal., are directors.

OREGON SHORT LINE.—Supt. G. H. Olmstead, Pocatello, Idaho, according to a report, has stated that the St. Anthony branch will be extended into Yellowstone Park this summer. There would be about 25 miles of track.

OHIO & MARSHALL COUNTY.—This company has been chartered with $230,000 capital, to build from Benwood to Wheeling, W. Va. The railway probably will be for transportation of coal. J. V. Thompson, of Uniontown, W. Va., a coal land owner, is interested. Incorporators: A. J. Cochran, D. L. Hubbs, Thomas M. Banner, Joseph E. Barnes and I. W. Semans, all of Pittsburg.

PAWNEE R. R.—Construction will be begun on a 17-mile extension from Pawnee to Taylorville, Ill. J. J. Hart, 215 Dearborn St., Chicago, Ill., is Gen. Mgr. C. F. Clendennen, Pawnee, Ill., is Supt.

PENNSYLVANIA RY.—The Buffalo & Allegheny Valley Ry., controlled by the Pennsylvania, will be double-tracked between Rimerton and Phillipston, Pa., 6½ miles. C. T. Dabney, Pittsburg, is Division Supt. Grading is partly finished.

PITTSBURG, SHAMUT & NORTHERN.—An extension, to be known as the Brookville & Mahoning Ry., will be built from Brookville, on the P., S. & N., to Freeport, Pa. A. G. McComb, Olean, N. Y., is Ch. Engr.; A. G. Lane, St. Marys, Pa., is Gen. Supt.

PITTSBURG, CINCINNATI, CHICAGO & ST. LOUIS (Pennsylvania).—Company has authorized expenditure of $330,000, it is said, for double-tracking line between Wilberforce and Florence, O., on the Cincinnati division. $400,000 has been authorized for double-tracking and elimination of crossings through Covington, O. Thomas Rodd, Pittsburg, is Ch. Engr.

SOUTHERN INDIANA.—PATTON & GIBSON CO., of Pittsburg, has been awarded contract, it is announced, for section of the Indianapolis extension.

SOUTHERN RY.—The line between Danville, Va., and Stokesland will be straightened and double-tracked. James P. Harrison, Danville, is local representative.

W. H. Wells, Engr. Construction, Washington, D. C., informs us that the line from Stevenson to Chattanooga, via South Pittsburg, Tenn., will be 42 miles long. Bids have not been asked on this work. Contract for 3,500-ft. tunnel through Lookont Mountain, near Chattanooga, was awarded to W. J. OLIVER, Knoxville, Tenn.

WESTERN ALLEGHENY.—This railway, owned by the Great Lakes Coal Co., of Pittsburg, will be extended from Newcastle Junction, Pa., to Youngstown, O., 20 miles. Estimated cost is $1,000,000. Construction is under way on line between New Castle Junction and Queen Junction. Awards of contracts for this work were noted in Engineering News on April 13.

WASHINGTON, IDAHO & MONTANA.—Incorporated in Washington to build a railroad from a point in Palouse County, Wash., into the Clearwater region of Idaho. Capital stock, $1,000,000. Incorporators: Charles A. Weyerhauser, of Little Falls, Minn.; F. E. Weyerhauser, of Saint Paul; F. H. Thatcher, of Winona, Pres. of the company; C. T. Andrews, Treas.; and G. R. Hadlock, of Augusta, Me.

WEST RIVER RAILROAD.—The Brattleboro & Whitehall, extending from Brattleboro to South Londonderry, Vt., 36 miles, has been reorganized under the name of the West River Railroad Co., with a capital stock of $150,000. Walter C. Noyes, John C. Averill, Justus A. Southard, George C. Jones, Edward C. Smith, Chester W. Witters and William E. Mullins, of St. Albans, Vt., are directors. Walter C. Noyes is Pres.; George C. Jones, vice-Pres., and W. H. Chaffee, Clerk and Treas.

WHEELING & LAKE ERIE.—Stockholders will vote, on May 20, on proposition to issue $50,000,000 of general mortgage bonds. Within next three years it is planned to spend $15,000,000 on capital improvements including an expenditure of $4,000,000 to double-track the main line from Pittsburg Junction to Toledo, a distance of about 220 miles; $2,000,000 for additional cars; $3,000,000 to retire equipment notes; $1,500,000 to meet floating debt and provide working capital, and $600,000 for terminal improvements at Huron. W. S. Newhall, Ch. Engr., Pittsburg.

ELECTRIC RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

WILLIAMSTOWN, MASS.—The Hoosac Valley Street Ry. Co. [illegible] extend its line from Williamstown to Bennington, Vt. P. H. Dolan, Pittsfield, Mass., Gen. Mgr.; Joseph Rifenburg, North Adams, Ch. Engr.

BRIMFIELD, MASS.—The Consolidated Ry. Co., of New Haven, Conn., may build from Wales, Mass., a branch road to Stafford, Conn., through Fen[illegible]ille and Monson. [illegible] S. Anderson, Putnam, Conn., Gen. Mgr.

NORTHFIELD, MASS.—[illegible] Thomas, promoter of the Orange & Northfield St. Ry., is reported to have announced that construction will begin soon.

NEW HAVEN, CONN.—The Consolidated Ry. Co. has applied for additional charter rights to extend its lines in West Haven and New Haven. L. A. Farnham is Ch. Engr.

ROME, N. Y.—W. D. De Witt, Utica, Constructing Engr. of the proposed Rome & Oneida Elec. Ry., estimates the cost of building from Rome to Oneida at $197,500, as follows: Track and overhead construction per mile, $6,000, for 13 miles, $78,000; 10 D. T. equipment cars, at $5,000, $50,000; power house, 700 HP., $30,000; to cover all contingent expense, $39,500; total, $197,500. See May 11.

ALBANY, N. Y.—The Delaware & Hudson Co. will build a branch road, to be operated by electricity, into the lumber district at Albany. A. Eckstrom, Albany, is Consulting Elec. Engr.

HERKIMER, N. Y.—The Herkimer Business Men's Association is planning to secure location of the Oneonta, Cooperstown & Richfield Springs Ry. Co.'s terminus in this city. Upon certain conditions, Receiver Herbert T. Jennings, 206 Broadway, New York, is in favor of this extension.

NEWARK, N. Y.—The Rochester, Syracuse & Eastern Ry. Co. has been granted permission to construct a line through town of Arcadia. Thomas H. Mather is Ch. Engr., at Syracuse. The State Board of Railroad Commissioners has authorized the Rochester, Syracuse & Eastern Co. to issue a mortgage for $7,500,000. Of this amount $2,000,000 bonds are to be issued under the authority conferred. The company is also given permission to make an increase in common stock from $1,000,000 to $3,500,000; this will make the total stock issue of the company $6,000,000.

GOWANDA, N. Y.—Buffalo reports state that B. F. Parsons, 274 Hancock St., Brooklyn, is promoting plan to build an electric railway from Gowanda to Angola, N. Y.

NORRISTOWN, PA.—The property of the Lansdale & Norristown Electric Ry. Co., including franchises, was offered at sale on May 4. No bid was offered. The minimum price was $150,000. This figure has been reduced to $100,000 by court. A second sale will be held on May 27, at 11.30 p. m., at Norristown. Frank G. Hobson is Atty. for Easton Trust Co., the holder of a mortgage. Robert B. Keys, Bethlehem, Pa., is Receiver.

BLAIRSVILLE, PA.—According to former Governor W. A. Stone, the tracks of the Westmoreland Ry. Co., now connecting Latrobe and Derry, will be extended west to Greensburg and east to Blairsville. The section of the road between Latrobe and Derry has been operating two cars for a month. It is the plan of the company to continue the system from Blairsville down the Conemaugh and Kiskimmitas Rivers to Saltsburg, Apollo, Vandergrift, Leechburg and the Allegheny River towns, and also northwardly through Blairsville. Associated with Mr. Stone in the enterprise are Joseph Vilsack, Joseph Keeling and Patrick Ridge. Bonds will be issued to provide for the extensions, it is said.

LANCASTER, PA.—Capital is being secured for the Lancaster & Eastern Electric Railway Co., which is to connect Lancaster, Christiana and Gap. Right-of-way is secured. Capital stock of company is $400,000. The road will be leased, when completed, to the Conestoga Traction Co. H. W. Crawford is Ch. Engr. of Traction Co. Noted last week.

NEW CASTLE, PA.—The Pennsylvania & Mahoning Valley Ry. Co. lines controlling the local lines in Youngstown, Warren, Niles, New Castle and interurban lines and the New Castle & Sharon Company, operating the local Sharon lines and interurban lines between Sharon, New Castle and Youngstown have been merged. M. E. McCaskey, Youngstown, O., is Gen. Mgr. and Second Vice-President.

MT. JOY, PA.—The Lancaster, Rohrerstown & Mt. Joy Elec. Ry. Co. has been granted a franchise in this town. Company is required to build and operate line within two years. The route is from Mt. Joy to Rohrerstown via Landisville.

BOYERTOWN, PA.—Dr. Thomas J. B. Rhoads, Pres. of the Boyertown-Palm Electric Ry. Co. has announced that company will build an electric road to Limerick, if granted a franchise.

BLOOMSBURG, PA.—Capital of $200,000 of the Bloomsburg & Millville Ry. Co. is subscribed. A branch line may be run from Millville to Danville. Work of construction is to be begun soon.

WEST CHESTER, PA.—The West Chester, Uwchland & Pottstown Electric Railway Co. has been chartered to build a line from West Chester to Pottstown via West Goshen, West Whiteland, Uwchland, Upper Uwchland, West

Vincent, E[illegible] Nantmeal, South Coventry and North Co[illegible]ry. The directors of the company are[illegible] Wesley Talbot, Pres., West Chester; [illegible]rd A. Conard, Font; Horace A. Fetters, [illegible]land; R. Morgan Root, James H. Morri[illegible] [illegible]ttstown; John M. Plank, B. F. Green, W[illegible] Goshen, and Harvey W. Krauser, Font[illegible]

WILMINGTON, DEL.—The route of the Wilming[illegible] New Castle & Southern Ry. in this city [illegible] been surveyed by William A. Kimmey[illegible] E.

ODESSA, DEL.—The Odessa & Middletown Ry. will extend its line to Delaware City, about [illegible] miles. THE TENNIS CONSTRUCTION CO., of Pittsburg, Pa., is the contract[illegible] Charles Johnson, Middletown, is Ch. Eng[illegible]

CLARKSBURG, W. VA.—The West Fork & Valley River Ry. Co. has been chartered in West Virginia, with a capital stock of $100,000 to build an electric railway from Clarksburg to Grafton, W. Va., a distance of 22 miles. The road will parallel the Baltimore & Ohio Ry. The incorporators are Gordon B. Late and C. H. Warner, of Bridgeport, and R. G. A[illegible]tzer and Philip Steptoe, of Clarksburg, W. Va.

The line between Clarksburg and Fairmont, W. Va., will be completed at once by the Fairmont & Clarksburg Traction Co. Arthur L[illegible], Fairmont, is Gen. Mgr.

CHARLOTTE, N. C.—Wm. C. Whitner, Ch. Engr. of the City & Suburban Electric Co., Rock Hill, S. C., informs us that contract for building entire line from Charlotte to Gastonia, N. C., 23 miles, has been awarded to the RICHMOND CONSTRUCTION CO., of Richmond, Va. Sub-contracts probably will be let by this company. B. D. Heath is Pres.

ATLANTA, GA.—The preliminary survey for the proposed Atlanta-Macon Interurban Railway will be commenced immediately, according to Atlanta "Journal." Charles J. Canfield, of Chicago; Charles W. Swigert, of Manistee, Mich., and others are backing the project. Noted in full last week.

BIRMINGHAM, ALA.—W. H. Woodward, Rufus N. Rhodes, E. W. Rucker and others have applied to city council for a street railway franchise.

GULFPORT, MISS.—The charter of the Gulfport & Mississippi Coast Traction Co. has been approved. Company will build from this city to New Orleans. J. T. Jones, Pres. of the Gulfport & Ship Island Ry., at Gulfport, is the reported promoter.

ST. BERNARD, LA.—This parish will sell franchise to operate a street railway by any motive power except steam. Bids will be received. Address Hon. Albert Estopinal.

MADISONVILLE, KY.—Harris F. Holland, of Indianapolis, Ind., has submitted proposition to citizens of this and other nearby cities to build an electric railway from Evansville, Ind., to Bowling Green, Ky., by way of Madisonville, Hopkinsville and Henderson. Public sentiment is said to favor the plan.

SHELBYVILLE, KY.—Charles W. Kelly, C. E., of Jeffersonville, will begin survey at Eminence, Ky., for the proposed Shelbyville & Ohio River Traction Co.'s line, which will run from Shelbyville via Eminence, New Castle, Campbellsburg and Milton, to Carrollton. It will be about 57 miles long. George W. Young and T. H. Leber, of Eminence; W. O. Jackson, Dr. J. W. McGinnis and W. L. Nuttalls, of New Castle, are interested.

STEUBENVILLE, O.—We are informed by D. J. Sinclair, Steubenville, that surveys are completed for building the Tri-State Traction line from this city to Wellsburg, W. Va., via Follansbee. Capital paid in. Contract is said to have been let. J. W. Donnan, Washington, Pa., is Pres. The W. G. Wilkins Co., Pittsburg, is Engr.

BARBERTON, O.—J. E. Collins, of Barberton, is Ch. Engr. of the proposed Barberton, Wadsworth & Western Traction Co., we are advised. B. M. Clendenning, of Union Trust Bldg., Cincinnati, is Pres. Noted fully on May 4.

TOLEDO, O.—The Toledo Southern Construction Co. has been organized, it is said, by F. W. Coughling, James Klepfer, H. W. Lloyd, G. D. Welles and others, to build the Toledo & Southern Traction Co.'s line from Toledo to Celina, O.

NORWALK, O.—D. D. Washburn, of Greenwich, has applied to county commissioners for franchise for an electric railway through certain villages in this county. The proposed route is from Norwalk, through Olena and Greenwich, to Mansfield.

FOSTORIA, O.—S. P. Douglas, of Toledo, has applied to the council for a franchise for the construction of an interurban line from this city to North Baltimore, through Bloomdale and Bairdstown.

CONNERSVILLE, IND.—J. E. Jeffries, W. E. Rowe, G. C. Florea, L. O. Burgess and R. Neil Burgess have organized the Connersville Ry. Co., with $100,000 capital. Local towns will be connected.

BLUFFTON, IND.—The Marion, Bluffton & Eastern Traction Co. has been incorporated, with a capital stock of $30,000, to build an electric railway in Bluffton and through the counties of Wells, Huntington and Gronet, connecting Bluffton, Marion, Liberty Center, Warren, Van Buren and other towns. Frank F. Van Tuyl, Louis C. Justees, Herbert J. North and Robert F. Cummings are the incorporators.

The Ft. Wayne, Marion and Bluffton Traction Co., with a capital stock of $550,000, has filed articles of incorporation. The company will build an electric railway to connect Ft. Wayne, Sheldon, Bluffton, Warren, Marion, Van Buren, Curryville, Decatur and Monroeville. Frank H. Cutthall is Pres.; Samuel L. Morris, Harry E. Vordermark, Fred. C. Baase and F. H. Schmidt. Right-of-way is said to be practically secured.

LAPORTE, IND.—Judge A. B. Anderson of the United States District Court has ordered that the Chicago & South Shore Railway Company's interurban line between Laporte and Michigan City, including all property, rights and franchises, be sold at receiver's sale in Laporte on May 26. It is reported that the Indiana Railway Co. has arranged to buy the Chicago & South Shore Electric Railway property. It is announced that the purchasing company will build immediately from South Bend to Laporte.

VINCENNES, IND.—W. H. Schott, of Chicago, who has franchise to build a traction line from Terre Haute to Sullivan and Linton is raising funds to build a 36-mile line from Vincennes to Loogootee. Estimated cost is $1,040,000. The railway will pass through Fritchton, Wheatland, Montgomery, Washington and Connelburg.

INDIANAPOLIS, IND.—It is announced that Tucker, Anthony & Co., of Boston, have financed and will construct a high-speed electric railway between Indianapolis and Terre Haute, 52 miles. It will be known as the Indianapolis & Western Traction Co. and will be capitalized at $1,200,000.

FORT WAYNE, IND.—The Fort Wayne & Wabash Valley Traction Co. and the Muncie, Hartford City & Ft. Wayne Ry. Co. will build to Marion, via Bluffton. The former company will build a $1,000,000 power house in this city. M. J. Kehoe is Ch. Engr. and C. D. Emmons, Gen. Mgr., of the Ft. W. & W. V. line, and Roberts & Abbot Co., Cleveland, O., the Engr. for the Hartford City Co.

KANKAKEE, ILL.—Len Small, Pres., Kankakee & Western Elec. Ry. Co., informs us that right-of-way is partly obtained and portion of capital. Construction of the line will begin at Kankakee this summer. Contracts will be let soon. The railway will be built to Chebanse and thence southwest. Capital is $15,000. Previously noted.

CHICAGO, ILL.—In report to Mayor Dunne it was stated by John J. Cummings that the Chicago street railway properties "could not only be duplicated, but improved upon for $50,000,000." This report is in connection with municipal ownership plan.

PARIS, ILL.—At a recent meeting of promoters of an electric line proposed from this city to Reservoir Park, a committee was appointed to solicit stock. The line will cost $80,000, it is estimated, and of this $20,000 will be subscribed in Paris. One-fourth of the latter sum has already been subscribed for the enterprise, it is said.

DES MOINES, IA.—The Des Moines Interurban Co. has awarded the contract for the construction of the new line to Woodward and Perry to the WARE CONSTRUCTION CO., of St. Louis, Mo. The contract was at 16 cts. per cu. yd; 34 miles of construction will probably cost more than $150,000. Work is to be begun at once. The contract calls for a completion of the work by October 15.

DEADWOOD, S. DAK.—The Black Hills Traction Co., with a capital of $400,000, will build an electric road from Deadwood and Lead via Spearfish to Belle Fourche, a distance of 32 miles. The headquarters of the company will be at Spearfish. Richard B. Hughes, Henry Keets, J. F. Summer, M. L. Brenn and Robert Crawford, all of Spearfish, are incorporators.

BRYAN, TEX.—Council has granted franchise to W. P. Connelly, J. W. Batts, J. Allen Myers, G. M. Brandon and J. R. Astin to construct and operate an electric railway over the streets of Bryan; also to erect and operate an electric light plant. A condition of the franchise provides that work on the road and light plant must be begun within six months and be completed within a year from that time.

LEXINGTON, OKLA.—At annual meeting of the stockholders of the Oklahoma City, Lexington & Sulphur Springs Electric Ry. Co. arrangements were perfected for the building of the road. Construction will be begun on June 1.

LIGHT AND POWER PLANTS.

The names of parties awarded contracts are printed in capital letters.

PORTLAND, ME.—G. M. GEST, 277 Broadway, New York, has secured the contract for constructing a complete underground conduit system for the Consolidated Electric Light Co., of Maine, at Portland.

MECHANICSTOWN, N. Y.—We are informed that bids will be received by the Wallkill Transit Co. in about a week for piping, roof iron, stack and switchboard. Contracts for engines, boilers and dynamos have been let. Frank G. Brown, Middletown, N. Y., is Engr.

JAMAICA (L. I.), N. Y.—The Interinsular Heat, Light & Power Co., of New York City, has incorporated, with a capital of $500,000, to operate in the boroughs of Richmond and Queens, and in various towns and villages in Nassau and Suffolk counties. John Eckhardt, of New York; E. D. McLean, of Yonkers, and Edward A. Kracke, of Brooklyn, are incorporators.

ILION, N. Y.—Governor Higgins has signed the bill granting authority to city to issue bonds for the repair of the electric light plant.

TROY, N. Y.—The Troy Public Service Company has been organized to supply gas and electric power for lighting and power purposes. The company is to operate in Troy, Rensselaer, Poestenkill, North Greenbush, Sandlake, East Greenwich, Watervliet, Albany and Cohoes. The capital stock is $100,000. The directors are Michael F. O'Connor, Charles S. Aldrich and Edward Murphy, 2d, of Troy.

ALBANY, N. Y.—The following companies have filed articles of incorporation: The Oswego River Power Transmission Co., capital of $20,000, to manufacture gas and electricity, etc., in Onondaga and Oswego counties and elsewhere in the state. The directors are: Simon B. Storer and George W. Pulver, of Syracuse; and Louis W. Emerick, of Fulton.

The Overland Power Co., to operate in all the counties of the state, with a capital of $20,000, same direction as above.

The Nassau & Suffolk Light Co., of Hempstead, to operate in Nassau and Suffolk counties, with a capital of $500,000. Directors: Samuel M. Havens and Dana T. Ackerly, New York, and George J. Corbett, Richmond.

The Aqua Light & Power Co., with a capital of $100,000; directors: Daniel H. Foley, Brooklyn; Joseph M. Linden, Wood Ridge, N. J., and James Simmons, New York.

OSWEGO, N. Y.—Joseph M. Roman & Co., 136 Liberty St., New York, were lowest bidders, at $6,505, for installing interior and exterior lighting at Fort Ontario.

ALBANY, N. Y.—The Hanover Light & Power Co., of Albany, has been incorporated with a capital of $2,000,000, to furnish gas and electricity for light, heat and power to public and private interests in all cities and villages of the state. Albany, Buffalo, Utica, Syracuse, Rochester, Troy and other cities except New York are mentioned in the certificate of incorporation. The directors are Edmund G. Dumazuel, Frederick K. Morris, Frank B. Pierce, Francis A. Huck, John D. Fearhake, Charles A. Voettach, Wesley Farrington, Arnold L. Davis and William C. Janney, of New York; and William Brower and Maurice S. Decker, of East Orange, N. J.

NORTH TONAWANDA, N. Y.—Bids are asked until 8 p. m., June 6, for lighting city from August 1, 1905, to August 1, 1906, or from August 1, 1905, to August 1, 1908. George J. Smith is Cy. Clk.

JERSEY CITY, N. J.—The Hudson River Tunnel Co. has purchased site at foot of York St. for a large power plant to supply power for operation of cars under the river.

MIDDLEBURG, PA.—Geo. W. Wagonseller, Secy., Middlecreek Electric Co., writes us that bids are asked from May 20 to June 1, for the construction of a complete water power electric plant on Middle Creek, two miles south of Selinsgrove, Pa. There will be required a solid concrete dam across a ravine, about 360 ft., with a spillway of 150 ft., dam to be 17 ft. high above water. A tunnel and excavation 1,225 ft. long through a mountain for head race; two units consisting of four wheels, direct-connected to two generators; switchboard; power house; about 25 or 30 miles of line construction and the entire plant complete ready to run for supplying light, heat and power for Selinsgrove, Sunbury, Northumberland and perhaps Middleburg. Plans and specifications may be seen after May 20 at office of Secretary, in Middleburg. E. F. Shatzer, is Hydraulic Engr., at site of plant on Middle Creek.

WASHINGTON, D. C.—The Union Lighting Co., of Philadelphia, submitted the only bid received for lighting portions of District public grounds during year beginning July 1.

Bids are asked by District Commissioners until May 22 for lighting public streets, avenues, alleys and roads in District of Columbia, during year ending June, 1906, with incandescent mantle gas lamps. (Advertised, Engineering News.)

FAYETTEVILLE, N. C.—City has voted to issue $30,000 of bonds for enlarging the electric light plant. W. T. Jones is Supt. of plant.

WAYNESVILLE, N. C.—The citizens are reported to have voted to install a system of electric lighting.

KINGS MOUNTAIN, N. C.—Bonds for $15,000 will be issued for the construction of an electric light plant.

GREENVILLE, S. C.—Lockwood, Greene & Co., Engrs., 93 Federal St., Boston, write us that bids have been received for the construction of Saluda River Power Co.'s dam and power house here, and are now under consideration. Engineers have also received bids for the full water wheel equipment and for the electrical generators and other power house apparatus. No contracts have yet been placed, but will undoubtedly be made within a short time.

COLUMBUS, GA.—The Columbus Railroad Co., which operates a 26-mile electric line in this city, is said to have plans under way to build a new power plant on the Chattahoochee River, two miles north of Columbus. The company is controlled by Stone & Webster, Engrs., 93 Federal St., Boston, Mass. F. E. Reidhead is Supt. of Lighting Dept., at Columbus.

GADSDEN, ALA.—Council has granted a 30-year franchise to C. B. Foreman, Thomas H. Stephens and John B. Hammond to construct and operate a gas plant. Work must begin within six months and plant be in operation in 18 months.

LAKE CHARLES, LA.—One bid was received for furnishing street lights, commercial lighting, etc., in this city. It was submitted by the Lake Charles Ice, Light & Water-Works Co.

LAKE CHARLES, LA.—Council has ordered an election to vote on issuing $60,000 of bonds to build a municipal electric light plant or purchase plant of the local electric light company.

MURFREESBORO, TENN.—The city desires to change its present system of lighting the streets from incandescent to arc lights, and will receive bids, plans and specifications for that purpose until June 1, It is not the purpose of the city to buy or own the plant, but simply to contract for the light for a term of years. Information on this subject is wanted by Mayor J. H. Crichlow.

McMINNVILLE, TENN.—Preliminary plans have been prepared, we are informed, by T. M. R. Meikleham and W. B. Dinsmore, Jr., Engrs., 44 Broad St., New York, for proposed power plant on Caney Fork River, near this place. It is said that 50,000 HP. may be developed at the Great Falls. Col. C. H. Ackerman, of Binghamton, N. Y., is the reported backer. Estimated cost of this power development is $1,000,000.

MEMPHIS, TENN.—Prices on acetylene gas lighting system, about 20 or 30 lights, are wanted by John Hansler, 120 Monroe St.

SPRINGFIELD, O.—A. J. STAHL, of La Porte, Ind., has contract for new heating plant for the People's Light, Heat & Power Co. Cost will be about $200,000.

ROSE CITY, MICH.—Andrew King, Electrical Engr., of Bay City, has submitted estimate of cost of an electric lighting plant to the Rose City Mfg. Co. A plant may be erected to supply city. W. A. Humphrey is Supt.

CHICAGO, ILL.—Lower house of Legislature has concurred in the Senate amendments to a house bill giving Chicago the power to regulate the price of gas and to sell to private consumers for heating purposes, surplus electricity from municipal electric lighting plants..

WEBSTER CITY, IA.—Municipal gas plant is under consideration.

SOUTH SAINT PAUL, MINN.—Council has granted a franchise to South St. Paul Heat, Light & Power Co., to install an electric lighting system and to supply power to manufacturing plants.

ALMA, NEB.—See under Water-Works.

FORT PIERRE, S. DAK.—Mayor Charles J. Lavery writes us that contract for gas well has been let to FRANK P. RUST, Ithaca, N. Y.

LINCOLN, NEB.—Bids are asked until May 19, 2 p. m., by Thomas H. Pratt, City Clk., for furnishing pipe, fittings, valves, etc., necessary to install a complete system of piping in the municipal electric lighting and power plant. C. R. Richards and G. H. Morse are Consulting Engrs.

JACKSON, MO.—Water and light plant is contemplated, we are informed. Est. cost, $50,000. Hiram Phillips, St. Louis, Mo., is Consulting Engr.

ST. LOUIS, MO.—Dr. Heine Marks has petitioned council for a 50-year franchise to furnish natural gas. It is proposed to lay mains from southern Kansas to the city of St. Louis.

BRECKENRIDGE, MO.—City has voted to issue $10,000 of bonds for the construction of an electric light plant.

JOPLIN, MO.—The Jasper County Light & Fuel Co. of West Virginia, has filed articles of incorporation in Missouri. Capital stock, $25,000.

KANSAS CITY, MO.—The ordinance granting a franchise for natural gas to Hugh McGowan, noted last week, provide that within a year after filing acceptance he shall have laid and constructed within the limits of the city not less than 50 miles of pipe and within two years 200 miles of pipe.

DALLAS, TEX.—W. G. Berg, as trustee, has applied to council for a new franchise for the Dallas Gas & Fuel Co. If franchise is granted, company will spend $200,000 in extending gas system to Oak Cliff, Oak Lawn and outlying districts. Cockrell & Gray are Attys.

McKINNEY, TEX.—THE HUNTER ELECTRICAL SUPPLY CO., of Dallas, has the contract for installing a new electric light and power plant here. The plant will be in operation in about two months.

LONGBEACH, CAL.—M. E. May, Secy., United Improvement Co., of Los Angeles, writes us that bids will be received about July 15 for erecting gas plant at Longbeach. Estimated cost, $15,000. Full particulars noted on May 4.

SANTA BARBARA, CAL.—The Commercial Club is interested in plan to raise funds for a lighting plant to be controlled by city. W. N. R. Weldon is Pres. of the newly organized company which is to be known as the Merchants' Mutual Light & Power Co. Henry N. Sessions is Mgr.

VISALIA, CAL.—Bids are asked until June 5 for an electric franchise in this city. Eugene L. Scott is County Clk.

FORT STEEL, B. C.—The Bull River Power & Mining Co. will erect a large power plant at Bull River, 22 miles southeast of here.

NAPANEE, ONT.—Town may build a $40,000 electric light plant. J. E. Herring is Town Clk.

WINNIPEG, MAN.—Bids are asked by W. J. Cockburn, Chn., Special Power Committee, until June 12 for supply of electric power, the maximum quantity of power to be used will be 1,500 HP. In addition the city will receive bids from owners of water powers for sale of same to city. C. J. Brown, Cy. Clk. (Advertised, Engineering News.)

BRIDGES.

The names of parties awarded contracts are printed in capital letters.

RUTLAND, VT.—Bids are asked by H. B. Whittier, Cy. Clk., until June 5 for purchasing a wrought steel, riveted lattice bridge, 487 ft. long. (Advertised, Engineering News.)

MIDDLETOWN, N. Y.—We are informed that the contract for rebuilding stone pier of Pellet Island bridge was awarded to HORSEHEAD CONSTRUCTION CO., Horsehead, N. Y., for $2,300, additional masonry $6.50 per cu. yd. and 45 cts. per lin. ft. for piles (driven). Bids were opened by Chas. H. Smith, County Engr., May 15, as advertised in Engineering News.

BOSTON, MASS.—Bids are asked by William Jackson, Cy. Engr., until May 25, 12 m., for construction of abutment and retaining walls of Boston approach to Brookline St. bridge.

MILLER'S FALLS, MASS.—Plans are being made to replace the old iron bridge on the Central Vermont railroad over Miller's River with a new structure. It will be about 300 ft. long and 75 ft. above the bed of river. J. M. Morrison is Engr., St. Albans, Vt.

BOSTON, MASS.—Bids are asked by Cambridge Bridge Commissioner, City Hall, until May 23, 2 p. m., for furnishing and erecting cast iron fascias for Cambridge bridge. Plans can be seen at office of Wm. Jackson, Cy. Engr.

UTICA, N. Y.—The Assembly has passed bill appropriating $18,000 for construction of lift bridge across Erie Canal at Seneca St., Utica.

ROME, N. Y.—Preston H. Porcheron, Cy. Engr., informs us that the bill which called for the construction of bridge over canal at South Washington St., did not reach the Senate before it adjourned and is dead for another year at least. Previously noted.

CAMDEN, N. J.—At a recent meeting of Bridge Committee and County Commissioners it was decided to at once build a bridge over Cooper's Creek.

ASBURY PARK, N. J.—The following bids were received May 5 for the erection of a bridge over Deal Lake: L. A. Deitz, New York, $12,500; B. A. Van Brunt, Seabright, $7,450; B. L. Smock, Asbury Park, $6,752; Berlin Construction Co., New York, plan A, $11,200, B $15,300; New Jersey Bridge Co., Manasquan, N. J., A $10,550, B $14,900, C $6,500, D $7,900. The New Jersey Bridge Co. will probably receive contract for plan C. Leon Cubberly, Engr., 180 Broadway, Long Branch.

READING, PA.—Bids are asked until May 26 for building bridge over Saucony Creek in Greenwich and Richmond Townships. Bids are wanted on steel truss superstructure with a plank flooring or on a steel truss superstructure with concrete roadway, also masonry work. H. F. Livingood, County Controller. (Advertised, Engineering News.)

CATASAUQUA, PA.—Plans for building overhead bridge at Catasauqua, which is to be 1,100 ft. long and cost about $80,000, to be paid for by county and Lehigh Valley Railroad Co., it is reported, have been approved and bids will soon be asked for its construction. Address County Clerk, at Allentown.

DONORA, PA.—The Carnegie Steel Co. has given a contract to AMERICAN BRIDGE CO. for building railroad bridge over Monongahela River, between this place and Monessen.

MIFFLINTOWN, PA.—Bids are asked by County Commissioners until June 3 for building a stone and cement bridge over Juniata River.

WILKESBARRE, PA.—Bids are asked by Jas. M. Norris, County Compt., until June 5 for 40 steel and stone arches in Luzerne County ranging in cost from $250 to $2,000 each. W. B. Allegar, County Engr., 20 North Franklin St.

BERWICK, PA.—The state will rebuild steel bridge across the Susquehanna River here, washed away over a year ago. Cost, $150,000. Bids will soon be asked for this work by State Board of Public Buildings.

YORK, PA.—It is stated that the County Commissioners of this (York) county will, this summer, erect four steel bridges. $8,000 has been set aside for this purpose.

JACKSON, MISS.—The Board of Supervisors has authorized the construction of a bridge over Chapman Creek, near Jackson. Samuel Livingston is Clk.

VICKSBURG, MISS.—Preparations for rebuilding the Yazoo & Mississippi Valley Railroad bridge across Bayou Pierre are being made. W. L. Bennett is Supv. Bridges, Vicksburg.

BENTON, LA.—Negotiations are under way for building of a new highway bridge over Red River at this place.

CHATTANOOGA, TENN.—It is reported that the Central of Georgia Railway is arranging to build steel bridges across Flint, Big Tallapoosa, Etowah, Ostanaula and Chattanooga Rivers and Chicamauga Creek on the Chattanooga division of the road. H. M. Steele, Savannah, Ga., is Ch. Engr.

LIMA, O.—Bids are asked by County Commissioners until June 1 for constructing a one-span, 104 ft. long, high truss iron bridge over Riley Creek in Richland Township, with a roadway 16 ft. wide. C. S. Craig, County Engr.

MEDINA, O.—We are informed that all bids received May 1 by County Commissioners for constructing steel bridge over Rocky River were rejected and new bids will be advertised for. W. H. Hobart, County Audr.

MARION, O.—Bids are asked by County Commissioners until June 6 for construction of steel superstructure over Scioto River in Pleasant Township. L. M. Hipsher, County Audr.

YOUNGSTOWN, O.—County Commissioners have approved plans for new steel bridge over Pittsburg, Youngstown & Ashtabula Railroad, at Lowellville. It will be 24 ft. wide and 84 ft. long.

CINCINNATI, O.—The following bids were received by County Commissioners May 5 for new lift bridge over canal at Benson St., Lockland: Indiana Bridge Co., $24,000; Virginia Bridge Co., $22,500; Huston & Cleveland, $21,100; King Bridge Co., material only, $11,000, labor only, $5,000, material and labor, $11,900; Cope Bridge Co., $27,000; Illinois Bridge Co., $31,000; Geo. R. Barry, $16,000; Brackett Bridge Co., Plan 1, $21,250, 2, $20,800, 4, $14,900; Newcastle Bridge Co., $25,900; Champion Bridge Co., $13,100; Toledo & Massillon Bridge Co., $21,000.

TOLEDO, O.—Arrangements have been completed by Board Public Surveys and County Commissioners to jointly build a bridge over Ten-mile Creek, to cost $15,000. D. T. Davies, Jr., is County Audr.

GERMANTOWN, O.—Montgomery and Preble Counties have agreed to jointly build a bridge over stream between the two counties.

ANDERSON, IND.—E. J. Wilcox, County Engr., is preparing plans for two steel bridges, 90 ft. and 60 ft. and two concrete arches, 28 × 16 ft. and 25 × 40 ft., for County Commissioners. Jos. Kinnard is County Audr.

PLYMOUTH, IND.—Bids are asked by H. L. Singrey, County Audr., until June 5 for constructing two iron leg bridges, 30 and 45 ft. in German Township, and one iron bridge, 50 ft., in Green Township.

ELWOOD, IND.—This city contemplates the construction of six concrete bridges. F. O. Hodson is Cy. Engr.

LAFAYETTE, IND.—County Commissioners let contracts for two bridges to R. R. MOORMAN. Total cost, $1,075.

WABASH, IND.—JOHN ROSS, of Frankfort, Ind., was awarded contract for construction of 275 ft. bridge across Eel River at Stockdale. Cost, $12,000.

INDIANAPOLIS, IND.—Bids are asked by County Commissioners until June 1 for construction of the Emrichville bridge over White River. H. W. Klausman, County Surv.

GOSHEN, IND.—The Washington St. bridge over Hydraulic Canal in this city collapsed. John L. Cooper is Cy. Engr.

BLUFFTON, IND.—N. T. MILLER, of Bluffton, agent for Indiana Bridge Co., of Muncie, was awarded contracts for 14 new bridges to be built in Wells County.

CADILLAC, MICH.—Bids are asked by Board Public Works, W. J. Smith, Clk., until June 20 for construction of a "Long Boulevard Bridge" over waters of Lake Cadillac. (Advertised, Engineering News.)

MATTL CREEK, MICH.—Common Council has voted to build a new steel and cement bridge over the Kalamazoo River on south McCamly St.

FOND DU LAC, WIS.—The Board Public Works was ordered to prepare plans, specifications and estimate of cost for steel bridge at Hickory St. G. H. Stanchfield is Cy. Engr.

CROOKSTON, MINN.—Bids are asked by County Commissioners until June 1 for two approaches to bridge over Red River at Mallory. Nels. A. Hoffard, County Audr.

MINNEAPOLIS, MINN.—The Park Board authorized the expenditure of $10,000 for a bridge in Columbia Park, Minneapolis. F. H. Nutter is Engr., 706 Sykes Block.

TOPEKA, KAN.—H. E. GAINES has been awarded contract by County Commissioners for building foundation for bridge in Mission Township at $7 per cu. yd.

SCHUYLER, NEB.—Bids will be received by County Commissioners until May 22, for constructing county bridges for one year. J. P. Maple, County Clk.

PEMBINA, N. DAK.—We are informed that the contract for constructing eight steel bridges was awarded May 10 by County Commissioners to FARGO (N. Dak.) BRIDGE & IRON CO., for $2,350. Swain Thorwaldson, County Audr.

FARGO, N. DAK.—County Commissioners will soon advertise for bids for erecting a 40-ft. pile bridge in Hill Township and a 120-ft. bridge in Amenia Township.

FORT SMITH, ARK.—Wm. A. Falconer, County Judge, writes us that the two bridge contracts which were to have been let at Greenwood May 1 were not let on that day, and the letting has been postponed until June 6 at Greenwood.

DENVER, COLO.—Board Public Works has rejected all bids for construction of a concrete bridge at West Colfax Ave., as being too high. The appropriation is $20,000. John B. Hunter is Cy. Engr.

EVERETT, WASH.—County Commissioners awarded contract to PUGET SOUND BRIDGE & DREDGING CO., of Seattle, for rebuilding bridge over Skyhomish River at Monroe, for $3,572.

OAKLAND, CAL.—Bids are asked by Board of Supervisors until May 22, 11 a. m. for construction of a concrete bridge across Kaiser Creek. John P. Cook, Clk.

QUINCY, CAL.—We are informed that the contract for constructing steel bridge across Clover Creek was awarded to the CLINTON (Ia.) BRIDGE & IRON WORKS, for $3,127. H. P. McBeth, County Clk.

ST. THOMAS, ONT.—Bids are wanted by James A. Beel, Cy. Engr., for building a steel bridge at St. George St.

OTTAWA, ONT.—Plans have been made by Canada Atlantic Ry. Co. to at once put up a number of small steel bridges. M. Donaldson is Genl Supt., Ottawa.

OWEN SOUND, ONT.—The Town Council has decided to erect a permanent bridge across Sydenham River at Poulett St. It will be built either wholly of concrete or concrete on stone abutments with steel superstructure. Tenders will be invited in the near future.

PERTH, ONT.—Bids are asked by Wm. Davidson, County Clk., until June 6 for construction of steel bridge over Thames River; also for construction of abutments and wing walls for same. John Roger, Engr., Mitchell, Ont.

CHESLEY, ONT.—Bids are asked by W. McDonald, Warden, Chesley, until June 17 for construction of the following: Two concrete abutments, about 500 cu. yds.; one pier, about 175 cu. yds.; one steel bridge, 230 ft. long. James Warren, Engr., Walkerton.

BANFF, ALA.—Plans are reported completed by Canadian Pacific R. R. Co. for building a bridge over Kicking Horse River. N. E. Brooks is Div. Engr., Calgary, Alta.

FREDERICTON, N. B.—The New Brunswick Government is asking for tenders until May 22, for rebuilding MacFarlane bridge over east branch of Turtle Creek.

BUILDINGS.

The names of parties awarded contracts are printed in capital letters.

CONCORD, N. H.—C. L. FELLOWS & CO., of Concord, have been awarded contract for new hospital building for New Hampshire State Hospital; price, $111,366. Also for installing new iron stairways for $9,450. The HUTCHINSON BUILDING CO., of Concord, has been awarded contract for hospital storehouse building for $8,342, and hospital employees' house for $9,450.

GLOUCESTER, MASS.—The following bids were received May 9 for constructing state armory at Gloucester: Geo. W. Harvey Co., Boston, $70,990; Pitman & Brown, Salem, $67,906; Mead, Mason & Co., Boston, $55,971; M. H. Maney, Haverhill, $54,974; E. T. Wilson, Natick, $51,173; Buckley Bros., Worcester, $51,000; Isaac Weaver, Boston, $50,759; Keller Bros., Haverhill, $49,950; H. P. Cummings Co., Boston, $47,591; Eli Jackman, Gloucester, $47,365; J. W. BRUTY & CO., Boston, 7 Water St., $43,785 (awarded contract).

GLOUCESTER, MASS.—JOHN W. BRUTY & CO., 7 Water St., Boston, signed the contract May 16 for armory building at Gloucester, bids for which closed May 9; his original figure was $43,785, but some changes were made which reduced this amount somewhat.

GARDINER, MASS.—BURKE BROS., 166 Devonshire St., Boston, were awarded contract May 9 for erecting three new buildings for State Colony for the Insane at Gardiner. Cost about $65,000.

SOUTH BOSTON, MASS.—Contract for new warehouse in South Boston, for Boston Wharf Co., to be occupied by American Radiator Co., has been awarded to MORRILL CONSTRUCTION CO., 79 Milk St., Boston.

WEST NEWTON, MASS.—Contract for new church in West Newton was awarded to H. P. CUMMINGS & CO., Board of Trade Bldg., Boston, for about, $100,000. Cram, Goodhue & Ferguson, 15 Beacon St., Boston, are Archs.

LIMA, N. Y.—Bids are asked by Patrick Hendrick, Chn. Bldg. Com., until May 31 for erecting a two-story cement or concrete block school building. Wm. J. Beardsley is Arch., 42 Market St., Poughkeepsie, N. Y.

NEW YORK, N. Y.—Wm. G. Pigueron, Arch., 32 Union Square, has plans in progress for a loft building to be erected at 29 West 15th St., for the Acme Building Co., 32 Union Square. Brick and stone, 12 stories, 25 × 100 ft. Cost, $150,000. Engines, generators, fire alarm system, steel stack, ventilating ducts, etc.

Ludlow & Valentine, Archs., 1 East 27th St., have plans in preparation for a church to be erected on West End Ave., for Bloomingdale Reformed Church, on a plot 100 × 150 ft. Heating system, switchboards, furniture, pipe organ and tapestries.

F. H. Kimball, Arch., 71 Broadway, is taking figures again on revised plans for alterations in Casino Theatre, which consists of interior alterations, extensive changes to balconies and an entirely new lighting and heating systems. Cost, $50,000.

MARC EIDLITZ & SON, 489 Fifth Ave., have been awarded general contract for erecting bank building at 270 Broadway for Chemical National Bank, at $250,000. Stone and brick, fireproof, 1 story, 75 × 100 ft., and 8 stories, 60 × 100 ft. Trowbridge & Livingston are Archs., 424 Fifth Ave. Marc Eidlitz & Son will soon take bids on all sub-contracts. Engines, generators, blowers, elevators, etc.

L. A. Goldstone, Arch., 110 West 34th St., has plans in progress for 15 residences to be built on 85th St., between Central Park West and Columbus Ave., for James Carlow Construction Co., 17 West 122d St. Brick and stone, 4 stories, 20 × 60 ft. each. Total cost, $450,000. Heating and ventilating, electric lights, and plumbing. Owners will do the building and are taking figures on all subcontracts.

Fred Rose, Arch., 1 Madison Ave., is taking figures on an addition to Louis P. Sherry's hotel at Fifth Ave. and 44th St. Mason, carpenter, excavating, heating, plumbing and electric work and power equipment are all figured separately. Cost, $150,000.

Buchanan & Fox, Archs., 11 East 59th St., are taking figures on a residence for Louise C. Mohlman, 52 West 52d St. Brick and stone, 4 stories, 20 × 90 ft.

Schickel & Ditmars, Archs., 111 Fifth Ave., will take figures soon on an electric lighting plant for St. Vincents Hospital at Seventh Ave. and West 11th St. Equipment includes 2 75-HP. simple steam engines, 1 40-HP. steam engine, 2 50-KW., d. c. generators, 1 25-KW., d. c. generator, steel stack, etc.

J. B. Holbrook, 25 Broad St., has plans in progress for an extensive heating system, including low pressure boilers, for J. H. Pierce's new residence to be erected at 11 East 51st St. J. H. Duncan, 208 Fifth Ave., is Arch.

CHURCH CONSTRUCTION CO., 126 Liberty St., has been awarded general contract for an automobile garage to be located at Broadway and 55th St., for the Decanville Automobile Co., 136 West 38th St. Reinforced concrete, 4 stories, 75 × 200 ft. Heating system, electric lights and electric charging apparatus. Everything is included in general contract. Cost, $75,000.

Maynicke & Franke, Archs., 298 Fifth Ave., are taking bids on an addition to New York Cotton Exchange, Fredk. Van Piper, Secy., at Beaver and William Sts. Brick and stone, 9 stories, 30 × 75 ft. Cost, $150,000. Previously noted.

SYRACUSE, N. Y.—Wm. B. Kirk has commissioned Chas. E. Colton, Arch., Kirk Bldg., to prepare plans for a three-story addition to Kirk Building at South Salina and West Fayette Sts. Two additional elevators will be installed.

WEST POINT, N. Y.—Bids are asked by Quartermaster until June 14 for building materials, plumbing materials, gas and steam fittings, hardware, tools, paints, glass and other miscellaneous stores. (Advertised, Engineering News.)

BUFFALO, N. Y.—Bids are now wanted for new Holy Angels school building, to be erected on West Ave. Cost, about $100,000. Address Rev. M. F. Fallon, O. M. I., Porter Ave.

FORT TOTTEN, N. Y.—Bids are asked until June 8 for construction, plumbing, heating and electric wiring of three double sets of Captains' quarters and one double set of lieutenants' quarters. Capt. Geo. H. McManus, C. Q. M. (Advertised, Engineering News.)

KEARNY, N. J.—Jos. Kennedy, Arch., 8 Kearny Ave., informs us that plans for school and hall for St. Cecilia's Parish will be ready the middle of June. Cost, $45,000. Previously noted.

NEWARK, N. J.—Bids are asked by Committee on School Houses of the Board of Education until May 23, 3.30 p. m., for furnishing material and erection of Belmont Ave. School, Hard & Sutton, Archs., Prudential Bldg.; 14th Ave. School, Frank F. Ward, Arch., 239 Roseville Ave., and Elliot St. School, Chas. P. Baldwin, [illegible]h., 45 Clinton St. Separate bids must b[illegible]de on mason, carpenter, ventilating, elec[illegible] steam heating work, etc. Percy B. T[illegible], 365 Market St., Consult. Engr.

ATLANTIC CITY, N. [illegible] A. Stout, Arch., Atlantic City, is pre[illegible] plans for a convention hall for the Atl[illegible] City Convention Hall Co. Brick and [illegible] fireproof, 3 stories, 150 × 285 ft. Cost, [illegible],000.

GLADSTONE, N. J.—Gro[illegible] Atterbury, Arch., 20 West 43d St., New [illegible], has plans in progress for a stable [illegible] erected at Gladstone for Geo. R. Mo[illegible] Exchange Place. Brick, 3 stories, 7[illegible] ft., with apartments for stable men. [illegible], $75,000.

HARRISON, N. J.—E. M[illegible]ALDRON & CO., Newark, N. J., have be[illegible] awarded general contract for rectory to be [illegible]ted at Harrison for the Church of t[illegible] Holy Cross. Heating system, plumbing a[illegible] electric wiring. J. Kennedy, 10 Fourth [illegible] Harrison, is Arch. Cost, $50,000.

UNION, N. J.—Bids are a[illegible] by Board Library Trustees until June [illegible] construction of proposed library bu[illegible]. A. R. Ross, 542 Fifth Ave., New Y[illegible] Arch.

JERSEY CITY, N. J.—Dod[illegible] Morrison, Archs., 82 Wall St., New Y[illegible] write us that the contract for erecting [illegible] house at Bergen Ave. and Forrest St., Je[illegible] City, for First Congregational Church, J[illegible] L. Scudder, pastor, will be let to ANDR[illegible] J. ROBINSON CO., 123 East 23d St., New [illegible]rk. Low pressure heating, electric pum[illegible] wind mill, driven well, washing machines[illegible], swimming pool, bowling alleys, poo[illegible] billiard tables, hot water heater for swi[illegible]ing pool, etc. Cost, $100,000.

ATLANTIC CITY, N. J.—Price & McLanahan, Archs., 1624 Walnut St., Philadelphia, Pa., have plans ready for bids for six-story addition to the Marlborough Hotel.

PETERSBURG, PA.—Henry Bra[illegible]s, Arch., 113 West Saratoga St., Baltimore, Md., is preparing plans for a seven-story bank and office building.

PHILADELPHIA, PA.—Bids are asked until June 14 for taking down the skeleton iron tower at the abandoned Port Penn Range Rear Light-Station, Delaware, and erecting it on a new foundation at the Listons Range Rear Light-Station, Delaware. Maj. J. C. Sanford, Corps of Engrs., U. S. A., Engrs. (Advertised, Engineering News.)

POTTSVILLE, PA.—EDWIN GILBERT & Co., Land Title Bldg., Philadelphia, have been awarded contract for an office building for Philadelphia & Reading Coal & Iron Co. Brick, stone and steel, fireproof, 5 stories, 60 × 110 ft. Cost, $125,000.

PHILADELPHIA, PA.—W. L. Blithe, Arch., 14 South Broad St., writes us that plans for church for Wharton St. M. E. Church will be let out for estimates some time in July. Stone, 4 stories, 169 × 150 ft. Cost, $85,000.

C. C. Zantzinger, Arch., 251 South Fourth St., has completed sketches for a bank and office building at Broad and Walnut Sts., for a syndicate of Philadelphia and New York capitalists. Cost, $2,000,000.

Director of Public Safety Smyth awarded contracts May 1 for work on new Municipal Hospital amounting to $854,813 to HENDERSON & CO., LTD., 1221 Arch St., and for work on the new Home for Indigents, costing $664,014, to DOYLE & DOAK, 1500 Sansom St. Bids for Municipal Hospital were received on 23 different items. The total bid of Henderson & Co., Ltd., on all items was $2,030,158; John R. Wiggins & Co., $2,073,227, and Doyle & Doak, $2,095,084. There is about $900,000 available at present for Hospital, so Director Smyth awarded contract to lowest bidder on ten items, amounting to $854,813. These provide for the construction of diphtheria and scarlet fever sections with outlying stables, kitchens and numerous other small buildings.

Bids were made on nine items for Home for Indigents. Total bids were as follows: Doyle & Doak, $1,796,339; Henderson & Co., Ltd., $1,803,400; John R. Wiggins, $1,820,000. At the present time there is about $700,000 to be used for the Home. Awards were made on two items, amounting to $664,014, to DOYLE & DOAK. The items are for the construction of main building.

CRAWFORDSVILLE, PA.—Bids are asked by James Knox Taylor, Supv. Arch., Washington, D. C., until June 5 for construction, complete, of U. S. post-office, at Crawfordsville.

WILKESBARRE, PA.—Owen McGlynn, Arch., Simon Long Bldg., is preparing plans for a church for the Ecclesia Slavica Congregation. Cost $75,000.

F. L. Olds, Arch., Coal Exchange Bldg., is preparing plans for an addition to Coal Exchange building. Brick, stone and steel, 7 stories, 100 × 100 ft. A complete power plant will be installed. Cost, $80,000.

ALTOONA, PA.—A. E. Westover, Arch., Keith Bldg., Philadelphia, has plans ready for bids for a three-story theater, at Altoona, for I. C. Mischler. Cost, $100,000.

DELAWARE CITY, DEL.—Bids are asked until May 31 for removing eleven frame buildings to sites indicated and raising one building on present site at Fort Mott, N. J. Capt. Louis F. Garrard, Jr., Q. M. (Advertised, Engineering News.)

WASHINGTON, D. C.—F. B. Pyle, Arch., 1003 F St., N. W., has prepared plans for a seven-story apartment house, to be erected on Vermont Ave.

U. S. Senator Redfield Proctor intends to build a seven-story, 50 × 142 ft., apartment house on K St. Clinton Smith is Arch.

WASHINGTON, D. C.—The Washington Loan & Trust Co., Ninth and F Sts., N. W., will have plans prepared for remodeling their bank at a cost of $75,000.

WASHINGTON, D. C.—Bids are asked by District Commissioners until May 31 for constructing and installing heating, lighting, power plant and water supply for Industrial Home School at Blue Plains, D. C., on grounds of new Municipal Almshouse; also for sewerage system. Henry B. F. Macfarland, Comr.

SALEM, VA.—[illegible] N. Ambler, Cy. Engr., is to prepare pla[illegible] for remodeling Roanoke County Jail, in[illegible]ding the placing of steel cells and appur[illegible]nces, fireproof floors, modern sanitary p[illegible]bing, etc.

WINSTON, N[illegible]—Bids are asked by James Knox Taylor, [illegible]ervising Arch., Treasury Dept., Washin[illegible] D. C., until June 21 for the constructi[illegible] the U. S. Post-Office, including plumb[illegible] heating apparatus, electric wiring and co[illegible]ts. (Advertised, Engineering News.)

CHARLOTT[illegible] C.—The Highland Hotel Co. will short[illegible]et contract for the erection of a six-stor[illegible]uilding to cost more than $100,000. W. [illegible]enny is Arch., Atlanta, Ga.

PLAQUEM[illegible] LA.—Plans and specifications are on [illegible]e in office of Engineering News, 220 B[illegible]way, New York, for erection of court-hous[illegible] Plaquemine. Bids will be opened June [illegible]

CHATTANO[illegible]A, TENN.—We are informed that J. Fred [illegible]erger & Bro. have purchased site on which [illegible] erect a 10 or 12-story office building, 70 [illegible] 135 ft. Est. cost, $400,000. Architect has [illegible]ot yet been selected.

KNOXVILL[illegible] TENN.—We are informed that R. T. W[illegible]trep & Son, contractors, Knoxville, will re[illegible]ive bids for structural and ornamental i[illegible]n, marble, mosaic and tiling, elevators, ele[illegible]ric wiring, sewerage, gas fitting, heatin[illegible] plumbing, ornamental terra-cotta, firepro[illegible]ng tile and other materials in ten-story ba[illegible] building here.

FRANKFO[illegible]T, KY.—The contract will be let for the e[illegible]tion of a new $1,000,000 state Capitol buil[illegible]ing. F. M. Andrews, Arch. Commissioners will meet to open bids and award contracts the early part of next month.

CLEVELAND, O.—Bids are asked by Emile M. Uhlrich, Arch., The Arcade, until May 24 for a fireproof school house, 100 × 130 ft., for Our Lady of the Lourdes, Randolph St. Cost, $50,000.

EVANSVILLE, IND.—Harris & Shopbell, Archs., are preparing plans for the following buildings on which bids will be asked as soon as plans are completed: Hotel Henderson, Henderson, Ky.; remodeling Capital Hotel, at Morganfield, Ky.; new bank building for Marion Bank, Marion, Ky.; new office building for Blue & Grugenheim, at Marion, Ky.; bank building for First National Bank, Mt. Vernon, Ind.

LAFAYETTE, IND.—The Trustees of Purdue University will soon ask for bids for construction of a new gymnasium. Est. cost, $65,000. W. E. Stone is Pres.

TIPSTON, IND.—We are informed that bids will be received untid May 25 for erection of a high school, 80 × 124 ft.; est. cost, $40,000. Steam-heating system will be required. Eberson & Finan, Archs., Hamilton, O.

INDIANAPOLIS, IND.—S. E. & Henry Paugh have ordered plans for a new five-story business building on South St. Bids will be invited as soon as plans are completed.

LAFAYETTE, IND.—The Indianapolis & Northwestern Traction Co. has ordered plans for a new terminal station on Fifth St. Bids will be invited soon. F. D. Norveil is Supt.

INDIANAPOLIS, IND.—A site has been secured for the new Deaf and Dump Institute just north of the State Fair Grounds. Bids will now be solicited. W. P. Herron; of Crawfordsville, is Secy. Bldg. Comn.

CHICAGO, ILL.—Wm. J. Brinkman, Arch., 163 Randolph St., has completed plans for a Catholic institution, which will consist of the following buildings: Machine shop, laundry, two convent buildings, one industrial building and two dormitories. Cost, $400,000.

Henry L. Ottenheimer, Arch., 109 Randolph St., is preparing plans for a warehouse to be erected at Dayton and Blackhawk Sts., for Cross Press & Sign Co. Mill construction, 4 stories, 100 × 176 ft. Cost, $100,000.

FORT SHERIDAN, ILL.—Bids are asked until May 27 for constructing of additions to hospital at Fort Sheridan, including plumbing, gas piping and steam fitting. Capt. William Weigel, Q. M. Plans and specification on file in office of Engineering News, 220 Broadway, New York. (Advertised, Engineering News.)

EAST ST. LOUIS, ILL.—A six-story office and theater building, 100 × 218 ft., will be erected at St. Louis and Collinsville Aves. H. C. Shivers is Arch., St. Louis, Mo.

ASHLAND, WIS.—Bids are asked by Board of Education until May 22 for new high school building. Henry Wildhagen, Arch., Ashland.

MILWAUKEE, WIS.—LANQUIST & ILLSLEY, 393 North Clark St., Chicago, Ill., have the general contract for an office building to be erected at Milwaukee for the Wisconsin Telephone Co., of Milwaukee. Cost, $250,000.

DARLINGTON, WIS.—Bids are asked by Geo. F. West Chn. Bldg. Com., until May 31 for the erection of court-house. F. W. Kinney, Arch., 909 Northwestern Bldg., Minneapolis, Minn.

MILWAUKEE, WIS.—We are informed by Buemming & Dick, Archs., Pabst Bldg., that plans for the North Side high school in this city will be ready for bidders on May 18. Building will be three stories high, of brick and stone construction; fireproof. Estimated cost, $139,000.

ATLANTIC, IA.—Bids are asked by James Knox Taylor, Supv. Arch., Washington, D. C., until June 19 for construction, complete, of U. S. post-office at Atlantic.

SOUTH ST. PAUL, MINN.—Bids are asked by Chas. W. Clark, Secy. Bd. of Education, until May 22, 7.30 p. m., for all labor and materials required for school house at South St. Paul.

ISANTI, MINN.—Bids are asked by H. P. Dahl, Clk., until May 27, 7.30 p. m., for the erection of a school building in Isanti. F. D. Orff, 61[illegible] Lumber Exchange, Minneapolis.

ST. PAUL, MINN.—Bids are asked by Rev. Anthony Ogulin, Chn. Bldg. Com., until June 2 for the erection of St. Bernard's church building, Albermarle and Geranium St., St. Paul. John N. Jager, Arch., 415 Evanston Bldg., Minneapolis.

SEWARD, NEB.—Contract for construction of county court-house was let by Board of Supervisors April 27 to ROKAHR & MARXEN, of Avoca, Ia., for $81,350. L. W. POMERENE & CO., of Lincoln, secured the plumbing and heating contract.

DEADWOOD, S. DAK.—County Commissioners have adopted plans of Bell & Detweiler, Archs., Minneapolis, Minn., for new $100,000 court-house.

PINE RIDGE, S. DAK.—Bids are asked by Department of Interior, office of Indian Affairs, Washington, D. C., until June 1 for erecting office building and employes' quarters at Pine Ridge agency. C. F. Larrabee, Act. Comr.

WATERTOWN, S. DAK.—Bids are asked by Common Council until June 1 for the erection of a Carnegie library for Watertown. H. L. Harris, Secy. Lib. Bldg. Com.

CAPE GIRARDEAU, MO.—Bids are asked until May 23 for direct and indidect heating about 1,500,000 ft. in Academic Hall and Manual Training building, lighting same and installing vacuum system, and heat regulation in Science and Practice Halls of State Normal School. J. B. Legg, Arch., 715 Locust St., St. Louis.

ST. LOUIS, MO.—We are informed that plans are being prepared by A. Blair, Ridington, Arch., 620 Chestnut St., St. Louis, for a three-story apartment house, 98 × 115 ft., for the Stanford Investment Co., 620 Chestnut St. Cost, $50,000.

HOT SPRINGS, ARK.—F. J. Hart, Arch., Arkansas National Bank Bldg., is preparing plans and will take figures until June 1 for a four-story and basement hotel, 100 × 107 ft., for D. Baitter. Cost, $65,000.

HOUSTON, TEX.—Plans and specifications addressed to Abe M. Levy, Chn. Bldg. Com., of Beth Israel Congregation, Houston, will be received until June 15 for building of a synagogue at Rush Ave. and Jackson St. Cost, $40,000.

HOUSTON, TEX.—County Commissioners have in contemplation the erection of a new court-house here to cost about $500,000.

COLORADO SPRINGS, COLO.—Bids are asked by James Knox Taylor, Supr. Arch., Washington, D. C., until June 20 for construction, except heating apparatus, electric conduits and wiring, of U. S. post-office and court-house at Colorado Springs.

SEATTLE, WASH.—Plans are being prepared for a 12-story fireproof office building, 60 × 120 ft., for Seattle & Northwestern Stock & Produce Exchange. John Graham, Arch., Globe Block, Seattle, writes us that no contracts have been let yet. Cost, $420,000.

SALT LAKE, UTAH.—The Western Pacific is to erect a big passenger depot on Fourth West and Third South Sts., to cost about $200,000. New freight terminals, depot, yards, etc., will be erected in Salt Lake, the improvements to cost about $1,000,000. G. L. Dillman is Ch. Engr., San Francisco, Cal.

WALLACE, IDAHO.—Stritesky & Sweatt, Archs., Spokane, Wash., are preparing plans and will take figures until July 1 for a four-story court-house, 70 × 94 ft., for Shoshone County. Cost, $70,000.

WINNIPEG, MAN.—The Winnipeg Street Ry. Co. will build a new station to cost $100,000 on Mill St.

WATER SUPPLY—IRRIGATION.

The names of parties awarded contracts are printed in capital letters.

PORTLAND, ME.—Bids are asked by Capt. A. W. Yates, Q. M., until May 27 for construction of additional water mains and hydrants at Fort Williams; also for road construction at Fort McKinley.

NEW MARKET, N. H.—Board Selectmen, Dr. Charles A. Morse, Chn., will receive bids until May 30 for laying 2,100 ft. 6-in. main, setting one 6-in. gate and three hydrants, for extension of town water system. Estimated cost of work is $2,000. Arthur W. Dudley, Manchester, N. H., is Engr.

BRISTOL, VT.—Bids are asked by Water Committee until June 2 for furnishing material and constructing gravity system of water-works. Lloyd & Mann, Engrs. (Advertised, Engineering News.)

NORTHFIELD, VT.—Bids are asked until June 6 for pipe, pipe laying, for covered concrete reservoir, valves, hydrants, special castings, gate boxes, etc., for the immediate construction of water-works for the village. A covered concrete reservoir of 225,000 gallons capacity will be made and about six miles of mains laid. Another system of springs about three miles north of village will be added. Frank L. Fuller, Boston, Mass., Engr.; Chas. A. Edgerton, Secy., Comrs. (Advertised, Engineering News.)

ST. JOHNSBURY, VT.—John L. Collins, Consult. Engr., Albany, N. Y., will make surveys for a water supply for this place.

HARDWICK, VT.—President Board Selectmen writes us that steps will probably be taken soon toward awarding contract for extension of municipal water system.

BOSTON, MASS.—Contract for improvement at Wachusett Reservoir of Metropolitan Water and Sewerage Board has been let to McBRIDE & CO., Brighton, Mass., for $25,461. Bids were received May 10.

CAMBRIDGE, MASS.—Work is to be commenced at once, according to reports, on the proposed $250,000 pipe line from Hobbs and Stony Brook Reservoirs to Fresh Pond. It is stated that the city will do the work and that Charles G. Craib, Winthrop, Mass., has been selected as Superintendent of Construction. Lewis Hastings is Cy. Engr.

WOONSOCKET, R. I.—Bids are asked by the Board of Water Commissioners until May 29 for a pumping engine of 5,000,000 gallons capacity. E. W. Kent, Supt. Water Dept.; F. H. Mills, Cy. Engr. (Advertised, Engineering News.)

EAST HARTFORD, CONN.—We are informed that specifications are ready for cleaning and enlarging reservoir of East Hartford Fire District, and for laying 3,700 ft. of pipe from another source. Est. cost of work is about $9,000. C. H. Olmstead, East Hartford, is Des. Engr., and John H. Walsh, Supt. W.-W., is official in charge.

COHOES, N. Y.—Water Board has awarded contract for power pump of 3,500,000 gallons capacity to GOULD MFG. CO., New York, for $5,950; contract for centrifugal pump of same capacity and motor to operate it was let to PLATT IRON WORKS, 93 Liberty St., New York. Bids were opened May 8.

OSWEGO, N. Y.—Following bids were received May 11 by Capt. W. M. Coulling, Q. M. U. S. A., for constructing water distributing system at Fort Ontario: Robt. B. Mitchell, N. Y., $5,896; E. F. Munger, Fulton, N. Y., $13,550; John C. Sullivan, Oswego, N. Y., $9,750; Mosier & Summers, Buffalo, N. Y., $12,000; De Witt G. Nash, Albany, N. Y., $5,845; M. J. Fitzpatrick, Plattsburg, N. Y., $6,769; Barnett Contracting Co., Oswego, N. Y., $11,535; John W. Danforth, Buffalo, N. Y., $8,875; Edward P. Bates, Syracuse, N. Y., $11,500.

NEW YORK, N. Y.—Bids are asked by the Aqueduct Commissioners, Harry W. Walker, Secy., 280 Broadway, until May 31, for constructing a reservoir, including the building of a large masonry dam near Katonah Station. About 26 months will be required for completion of contract.

WEST POINT, N. Y.—The bids received May 11 by Quartermaster U. S. M. A., for laying about 32,000 ft. 20-in. cast-iron pipe, etc., are given under Contract Prices.

WILMINGTON, DEL.—Contract for furnishing about three miles of pipe, bids for which were received May 1 by Water Commissioners, Theodore A. Leisen, Ch. Engr., has been let to T. A. GILLESPIE CO., New York, for $136,376.

WASHINGTON, D. C.—Bids are asked by Bureau Yards and Docks, M. T. Endicott, Ch., Washington, D. C., until June 24, for constructing reinforced concrete reservoir and water-distributing system at Naval Station, Guantanamo, Cuba. Specifications may be seen at office of Engineering News, 220 Broadway, New York.

WASHINGTON, D. C.—Specifications and drawings, prepared by the U. S. Reclamation Service for the following irrigation projects May be seen at the office of Engineering News, 220 Broadway, New York: Fort Buford Project, North Dakota and Montana, bids opened June 1; telephone system in connection with Fort Buford Project, bids opened June 1 (specifications only); Pathfinder Dam, North Platte Project, Wyoming, bids opened June 15; Lake Tahoe outlet and regulating works, Truckee-Carson Project, Nevada, bids opened June 15 (specifications only); distribution system, Minidoka Project, Idaho, bids opened June 15; pole line and telephone system in connection with Minidoka Project, bids opened June 15; main canal, Huntley Project, Montana, bids opened June 28; structures in connection with Huntley Project, bids opened June 28 (specifications only). All of the above work is advertised in Engineering News.

SOUTHPORT, N. C.—We are informed that all bids for sinking 6-in. deep tubular well at Fort Caswell have been rejected, and a re-advertisement will be made in a few days for sinking a 9-in. deep tubular well. Lieut. R. H. Williams, C. Q. M., is official in charge.

LEXINGTON, N. C.—Contract for construction of water-works for this place has been let to M. H. KELLEY, Asheville, N. C.; total cost will be $30,242. J. L. Ludlow, Winston, N. C., was Des. Engr.

MONTGOMERY, ALA.—The date for receiving bids for construction of steel standpipe and for foundations for air compressor, pumping engine and changes in and to pumping station building has been extended from May 15 to June 5, as is stated in our advertising columns. R. S. Williams, Cy. Treas.

NEWPORT, KY.—In our issue of last week we stated that an estimate and report on laying about a mile of 20-in. main to connect this city and Covington had been made to the Water Commissioners of the latter place. The matter was worked up and reported on by George Honung, Consult. Engr., Cincinnati, O., as Engr. appointed by the Covington Water Commissioners.

SIDNEY, O.—Contract for air lift compressor pump at water-works has been let to INGERSOLL-SERGEANT CO., Cleveland, for $1,860.

CINCINNATI, O.—Bids are asked by Board Trustees, Commissioners of Water-Works, Aug. Herrmann, Pres., until June 13 for laying 6,020 ft., 36, 30 and 24-in. cast-iron pipe in Western Ave., and 6,420 ft. 42 and 20-in. cast-iron pipe in several other streets. (Advertised, Engineering News.)

COLUMBUS, O.—Bids are asked by Board Public Service. Chas. H. Frank, Secy., until June 15 for labor and material for construction of water softening and purification works of a capacity of 30,000,000 gallons per day. Julian Griggs, Ch., Engr.; Herring & Fuller, New York, Consult, Engrs. (Advertised, Engineering News.)

ELKHART, IND.—Lake Shore & Michigan Southern R. R. Co. is reported to be asking for bids for rebuilding its private water-works system at Elkhart, Ind. Estimated cost, $20,000. Also for the installing of two new pumps of 1,500,000-gallon capacity to be driven by electric motor. T. J. Dawson, Elkhart, is Asst. Div. Supt., L. S. & M. S. R. R.

DE PERE, WIS.—Bids were received by Water Commissioners May 4 for improvements to water-works, contracts being let as follows:: Cast iron pipe and special castings, U. S. CAST IRON PIPE & FOUNDRY CO., $10,309; hydrants, valves and valve boxes, LUDLOW VALVE CO., Troy, N. Y., $1,353; pipe laying, W. O. BAHR, Manitowoc, Wis, $5,620; two 50,000-gallon tanks, CHICAGO BRIDGE & IRON WORKS, Chicago, $8,300; 50-HP. gas producer and engine, OTTO GAS ENGINE CO.; two 500-gallon pumps, DEANE PUMP CO., $944; two concrete storage reservoirs, tower foundations and well manholes, MINER & LARSEN, Richland Center, Wis., $2,108; 20 meters, NATIONAL METER CO.; two power houses, HENRY DERKS and HENRY CREMERS, $1,400.

ELDORA, IA.—H. G. Phillips, Supt. W. W., writes us that this place will put in about 800 ft. 4-in. standard cast-iron water mains, and will want prices on same. Hobart Follett, Chn. W. W. Comn.

MELROSE, MINN.—Oscar Claussen, St. Paul, Minn., has been selected as Des. Engr. for proposed municipal water-works for this place. Est. cost is $30,000, and Mayor J. E. Campbell is official in charge.

ALMA, NEB.—This place has voted $17,500 of bonds for water-works and electric plant, and Mayor A. C. Shollenberger writes us that contracts will be awarded June 8. M. A. Earl, First National Bank Bldg., Chicago, Ill., is Engr.

FORT PIERRE, S. DAK.—Mayor Charles J. Lavery writes us that no engineer has been selected as yet for proposed new municipal water-works to be installed at a cost of $30,000. Supply is to be from Missouri River, ½ mile distant from city. Mentioned April 13.

HAVRE, MONT.—Bids were received May 10 by Mayor and Council for installation of system of driven wells for this city, the contract being let to A. C. EDWARDS, Havre, for $8,362. His itemized bid will be found under Contract Prices.

JACKSON, MO.—See under Light and Power Plants.

CENTERVILLE, MO.—We are informed that this place will vote on bond issue for purpose of erecting water-works. Hiram Phillips, St. Louis, Mo., is Engr.

ST. LOUIS, MO.—Following bids were received by Board Public Improvements May 2 for construction of 7 ft. 19,634 lin. ft. long, flow line from the Chain of Rocks to Baden: Parker Washington Co., $491,682; Hanley-Casey Co., $496,185, Hill-O'Meara Construction Co., $499,239; Buehler-Cooney Construction Co., $536,908; August Hermann and John Monk, $549,164; Carroll Construction Co., $562,181; Heine Safety Boiler Co., $563,820; T. A. Gillespie Co., $579,228; Fruin & Colnon, $594,851.

LONGVIEW, TEX.—We are informed that the cities of Grand Saline, Jacksonville and Longview have voted to issue bonds for the installation of water-works. Plans and specifications for three plants will be ready about May 20, W. P. Bullock being Engr. for all three pieces of work. In regard to the Jacksonville system Mayor John C. Box writes us that the supply is to be from springs and that from four to six miles 4-in., 6-in. and 8-in. mains will be laid, a 125 ft. stand pipe erected and steam pump installed. The cost will be between $26,000 and $30,000.

ATHENS, TEX.—This city has made a contract with W. P. Bullock, Longview, Tex., for plans and specifications of a water-works and sewerage system to cost $38,500. Dr. Percy Larkin is Mayor. The source of supply will probably be an artesian well.

FORT WORTH, TEX.—We are informed that proposed extension of water-works of D. C. Trantham to Glenwood addition will probably consist of erection of 300 bbl. tank at an elevation of 100 ft., and the laying of about ½ mile of 6-in. mains. A volunteer fire department is being organized in the addition and equipment consisting of chemical engine, hand extinguishers, etc., will be purchased before June 1. C. B. Ambrose is Pres., Pub. Fire Convention.

ALTUS, OKLA.—This town, according to reports, desires to correspond with parties looking to the installation of water-works. Correspondence is also desired relative to sinking deep wells. Address John D. Rogers, Cy. Atty.

LAJARA, COLO.—Referring to projected reservoir to be constructed on the Alamosa River, between this place and Monte Vista, for the San Luis Valley Irrigation, Land & Power Co., we are informed that contract has been let for tunnel 1,000 ft. long through the mountain at side of dam to take care of flow of water in river. Plans are now being prepared for the construction of the dam proper, work on which is to begin about Aug. 1. E. W. Case, Colorado Springs, Colo., is Des. Engr.

FORT WRIGHT, WASH.—Bids were received by Constructing Quartermaster May 1 for water-works improvements at this post, the lowest bidders being H. A. Cotton, Port Townsend, Wash., at $7,400 for reinforced concrete reservoir; Burrell Construction Co., Seattle, Wash., at $3,085 for the pipe line; James C. Brood, Spokane, Wash., at $1,565 for pump house; and John J. Dwyer, St. Paul, Minn., at $3,800 for pump. For the work complete the Burrell Construction Co. was low bidder at $16,986.

McMINNVILLE, ORE.—Dr. Leroy Lewis, Chn. Water Com., writes us that a preliminary investigation has been begun for new municipal water-works. Source of proposed new supply is springs or mountain streams, six to nine miles distant from city.

ANAHEIM, CAL.—Referring to projected improvements of Anaheim Union Water Co., we are informed that matter has been referred to committee which will investigate cost, etc., and will report to Board, after which some action will be taken. P. H. Krick, Secy., is official in charge.

PACIFIC GROVE, CAL.—Local press reports state that the Pacific Improvement Co. will commence work about June 1 on extensive improvements to its water-works system. About 17 miles of 22-in. water main will be laid to replace the 12-in main now in use. A new pumping plant will also be installed. The work is to be done under the supervision of T. B. Hunter and will cost about $80,000.

WHITTIER, CAL.—Bids are asked until June 12 for furnishing the following: 5,100 ft. 16-in. and 6,240 ft. 14-in. cast-iron pipe; 2,600 ft. 12-in. riveted steel pipe; 40,000 ft. 3-in., 20,000 ft. 4-in. and 2,700 ft. 5-in. screw casing pipe; two water-tube boilers, 150 HP. each; horizontal six cylinder duplex, double acting steam pump of 1,400 gallons capacity; horizontal cross compound type pumping engine of 1,400 gallons capacity; duplex type air compressor; boiler feed pump and oil set. Bids are wanted also for construction of 12-

in. well to be 600 ft. deep. Frank H. Olmstead, 616 Grant Bldg., Los Angeles, Cal., Engr.; E. C. Butterfield, Cy. Clk.

SANTA ROSA, CAL.—We are informed that City Council is preparing for the sale of bond issue recently voted. No contracts will be let until June or later. Of the 200,000 bond issue voted, $72,500 was to be for improving the water-works. L. E. Ricksecker is Cy. Engr.

LOS ANGELES, CAL.—Baker Iron Works, San Francisco, Cal., at $18,900, was low bidder for installation of pumping plant in Mission Valley, bids for which were received recently by Board Public Works.

SALT LAKE CITY, UTAH.—Twin Falls Irrigation Co. has awarded contract for building 37½ miles of canal, requiring removal of about 1,500,000 cu. yds. earth, to the COREY BROS. CONSTRUCTION CO., Ogden, Utah, for about $140,000.

BRANTFORD, ONT.—Bids are asked by Water Commissioners until May 27 for three new boilers to be placed in pumping station. Fred W. Frank, Secy.

TORONTO, ONT.—City has awarded contract for three new water tube boilers for high level pumping station to the CANADA FOUNDRY CO., for $13,690.

SEWERAGE.

The names of parties awarded contracts are printed in capital letters.

SALEM, MASS.—The following bids were received for laying outfall sewer of local sewerage system: PATRICK McGOVERN, Boston, $109,372 (awarded contract); Phillips & Gerrish, Boston, $118,715; Metropolitan Contracting Co., Boston, $122,256; Louchhein & Co., Philadelphia, Pa., $123,625; T. H. Gill & Co., Boston, $128,587; Low & Palmer Co., Boston, $134,497.

BOSTON, MASS.—WM. J. BARRY was awarded contract for a drain for Nervine Asylum Brook, at $8,194. C. E. Putman is Consult. Engr., Boston.

DANBURY, CONN.—Bids are asked by A. L. Davis, Cy. Engr., until May 24 for construction of sewer and appurtenances in Terrace Place.

NEW HAVEN, CONN.—Bids are asked by C. W. Kelly, Cy. Engr., until May 23, 2 p m., for constructing sewers in West Carlisle St.

ROCHESTER, N. Y.—The city contemplate laying sewers in Court and Williams Sts. Edwin A. Fisher is Cy. Engr.

BALLSTON SPA, N. Y.—Board of Trustees has changed the date for receiving bids for eight miles of new sewers in this village from May 18 to May 25. Charles O. McCreedy, Vil. Treas., will also sell $60,000 worth of sewer bonds on May 25.

ITHACA, N. Y.—The Special Sewerage Committee has appointed Williams & Whitman, Inc., 1702 Whitehall Bldg., New York, as engineers to make a thorough investigation and suggest a remedy for abating nuisance in Cascadilla Creek, resulting from the overflow from sewer station.

NEW ROCHELLE, N. Y.—Bids are asked by Board of Sewer Commissioners until May 22 for constructing sewers in portions of Villas, Russell and Davis Aves. and East Main and Huguenot Sts. Geo. W. Sutton, Chn.

PLAINFIELD, N. J.—Bids are asked until June 5 for furnishing materials and constructing improvements to sewage disposal works of this city. Andrew J. Gavett, Engr.; James T. MacMurray, Cy. Clk. (Advertised, Engineering News.)

HARRISBURG, PA.—Contracts for sewers, aggregating a mile in length, bids for which were opened May 4, were awarded to UNITED ICE & COAL CO., of Harrisburg.

ERIE, PA.—Contracts for sewers in 25th and Plum Sts., were awarded to PATRICK DOYLE. DENNIS O'BRIEN was given contract for sewer in Second St.

McKEESPORT, PA.—Contract for constructing Grant St. sewer was awarded to the D. V. AULT CO.

READING, PA.—It is stated that bids will be received by Board Public Works until May 25 for constructing catchbasins in 18th and Cotton Sts.; also for cleaning catchbasins, setting new and resetting old curb, paving sand, cement, etc.; probable cost, $25,000. Elmer H. Beard, Cy. Engr.

WASHINGTON, D. C.—See under Buildings.

PETERSBURG, VA.—The city contemplates constructing sewers in a number of streets. Robert Budd, Cy. Engr. Est. cost, $30,000.

HICKORY, N. C.—The city has voted to issue bonds to establish a sewerage system. J. D. Elliott, Mayor, can give information.

MORGANTON, N. C.—The city will issue bonds for the construction of a sewerage system. Address the Mayor.

SPARTANBURG, S. C.—GEO. O. TENNEY has contract for extending sewerage system, 8,000 ft. J. L. Ludlow, Winston, N. C., Engr.

DARLINGTON, S. C.—Specifications for constructing sewerage system in Darlington are on file in office of Engineering News, 220 Broadway, New York. Bids for this work will be opened June 1, as advertised in Engineering News.

JACKSONVILLE, FLA.—The contract for furnishing material and laying 1,720 ft. of brick drains and 1,235 ft. of terra cotta drains was awarded to JOHN H. HARRIS.

BIRMINGHAM, ALA.—Bids were opened by Jefferson County Sanitary Commissioners May 4 for the erection of (a) septic tanks on Valley Creek and (b) Village Creek sewers, as follows: (a) Zubar & Mullarky, $22,874, (b) $7,516; Jefferson Construction Co., (a) $20,517, (b) $6,606; Black & Laird, (a) $20,019.

KNOXVILLE, TENN.—Board Public Works has awarded to CHARLES T. HEINS the contract for building Swan St. sewer.

LEXINGTON, KY.—Hering & Fuller, 170 Broadway, New York, have been selected by Mayor Thos. A. Combs to act as consulting engineers in supervising plans and specifications of Lexington's proposed sewerage system, for which the city has voted a bond issue of $100,000. P. P. O'Neill is Cy. Engr.

CINCINNATI, O.—Bids are asked by County Commissioners until June 9 for concrete, drain pipe, etc., at bridge over Duck Creek on Columbian Ave., Columbia Township. Eugene L. Lewis, County Audr.

CINCINNATI, O.—The contract for constructing sewers in Alma and adjoining streets was awarded by Board Public Service to JOHN E. MAHONEY, the only bidder, at $13,026.

CINCINNATI, O.—A resolution declaring it necessary to improve by sewering Linden St., was passed by City Council. J. E. Breen, Ch. Engr., Bd. Pub. Serv.

PAINESVILLE, O.—Bids are asked by Board Public Service until May 23 for furnishing material and labor for about 11,428 ft. of sewer. H. P. Cumings, Cy. Engr.

MARION, O.—Bids are asked by Board Public Service until May 24 for furnishing necessary labor and material for sanitary sewer in alley east of State St. Wm. Fies, Clk.

CLEVELAND, O.—Bids are asked by Board Public Service until May 25 for construction of sewers and culverts in various streets. W. J. Springborn, Pres.

LAFAYETTE, IND.—Contract for constructing sewer in Cincinnati St., consisting of 400 ft. 30-in. brick sewer, and 200 ft. 24-in., 200 ft. 12-in. tile sewer and catchbasins, has been awarded to JOHN C. FREY, Lafayette. Bids were received May 10. Anton Anderson, Cy. Engr.

TIPTON, IND.—We are informed that all bids received May 9 for building sewer were rejected and that work will be readvertised. Clyde Porter, Cy. Clk.

GRAND RAPIDS, MICH.—Plans are being prepared by L. W. Anderson, Cy. Engr., for the West Side sewer.

TRAVERSE CITY, MICH.—A number of sewers will be built by the city this year.

FAIRVIEW, MICH.—A resolution has been passed by Common Council in favor of contributing $20,000 toward building proposed sewer from near Fox Creek to Detroit city limits.

STERLING, ILL.—It is reported that the city will soon call for bids for constructing sewers.

OTTAWA, ILL.—Contract for construction of Guion St. sewer and laterals has been let to SHIPPEY & HOSSACK, of Ottawa, for $11,660.

MERRILL, WIS.—Bids are asked by Board Public Works until May 31 for constructing sewers. B. J. Lambert, Cy. Clk.

MILWAUKEE, WIS.—Board Public Works has given contract for construction of a brick and pipe sewer in Wright St. to GEO. E. ZIMMERMANN.

MILWAUKEE, WIS.—The city will expend about $200,000 this year for building of new brick and pipe sewers. Chas. J. Poetsch is Chn. Bd. Pub. Wks.

DES MOINES, IA.—City Council passed a resolution ordering Board Public Works to readvertise for bids for construction of Ingersoll Run sewer without change of specifications. Wm. Horrabin to whom the contract was awarded March 15 refuses to sign the contract. John W. Budd is Cy. Engr.

DENISON, IA.—The city contemplate laying a number of sewers. H. W. Faul is Cy. Clk.

DUBUQUE, IA.—New sewer will be laid in Caledonia Place and Couler Ave. James H. Boyce is Cy. Engr.

ST. PAUL, MINN.—The Assembly has decided to readvertise for bids on proposed storm water overflow sewer on Portland Ave. and Dale St. Three bids were received, the lowest being $2,570, but City Engineer Rundlett thought the work should cost less money. He recommended that all bids be rejected.

ST. PAUL, MINN.—An ordinance has been introduced in Board of Aldermen which provides for the issuance of $60,000 in bonds for the extension of St. Anthony Park sewer system.

ST. LOUIS, MO.—The following contracts for construction of sewers were let by Sewer Department: McINTYRE-TEESE CONST. CO., Fillmore St., No. 4, $36,201; MYERS CONST. CO., Prairie Ave., No. 8, $5,139; GEO. G. PRENDERGAST CONST. CO., Tower Grove, No. 1, $7,447, Tower Grove No. 2, $24,694; McINTYRE-TEESE CONST. CO., Manchester Road, No. 2, $61,859; MYERS CONST. CO., Gravois Ave., No. 2, $17,922; PRENDERGAST CONST. CO., Manchester Road, No. 3, $53,085; MYERS CONST. CO., Manchester Ave. (Public), $2,174; BUEHIER-COONEY CONST. CO., sewer inlets at various places, $3,317; WM. F. RILEY, Taylor Ave., sewer, $897, and PRENGERGAST CONST. CO., 17th St., sewer, $5,674.

ST. JOSEPH, MO.—The Board Public Works May 3 awarded to G. O. SKILBRED the contract for building a lateral sewer in district No. 83 and to PETER SWENSON the contract for building sewer No. 82.

WEBB CITY, MO.—Bids are asked by City Clerk until June 5 for constructing a sewer, embracing the following: 1,842 ft. of 8-in. vitrified pipe, including 124 Y junctions, 5 manholes and 1 flush tank, and all other appurtenances. W. E. Smith, Cy. Engr.

PINE BLUFF, ARK.—Bids are asked by Commissioners of Sewer District No. 8 until May 31 for construction of about 18,000 ft. of pipe sewer of the following dimensions: 3,000 ft. of 10-in. pipe, 15,000 ft. of 8-in. pipe, 420 vertical feet manholes, 10 flush tanks. Plans and specifications may be seen at office of Joe. B. White, Engr., or at office of Leitner & Weil; Pine Bluff.

SAN ANTONIO, TEX.—Bids will soon be received for a complete sewer system in the suburb of Loyal Heights. John D. Ruhlmann is Cy. Engr.

TULSA, IND. T.—At a special election held here May 1, $30,000 was voted for installing of a sewer system.

SAN BERNARDINO, CAL.—Contract for about 2,000 ft. of 8-in. sewer in Carter Ave. and First St. was awarded May 2 to GEO. M. COOLEY CO.

SACRAMENTO, CAL.—Contracts will probably be let in June for the construction of a trunk line sewer, to be of concrete and cost $80,000. J. C. Pierson is Cy. Surv.

PRESTON, ONT.—The Council will engage an engineer to report upon the cost of installing water-works and sewerage systems.

GALT, ONT.—Contract for Sections 2, 3, 5, 6 and 8 of sewerage system for this place has been let to THOMAS McLAUGHLIN, Galt, for $123,288, contractor agreeing to supply cast iron pipe required and to use Scotch sewer pipe.

STRATHCONA, ALTA.—Tenders will be received by A. C. Rutherford, Secy.-Treas. of Municipality, until May 29 for excavation, pipe-laying and back-filling of five miles of sewers, water mains and connections, etc. The town will furnish sewer and water pipe, iron work, hydrant valves and specials. A. J. McLean, Town Engr.

GARBAGE DISPOSAL.

The names of parties awarded contracts are printed in capital letters.

ALBANY, N. Y.—Ordinance has been before Council directing Commissioner of Public Works to ascertain the probable cost of erecting a plant for the cremation of refuse and garbage.

WAVERLY, N. Y.—Williams & Whitman, 17 Battery Pl., New York, are to prepare plans and specifications for garbage disposal plant and new sewer for this place, according to reports.

BRADLEY BEACH, N. J.—Bids are asked by W. E. Macdonald, Boro. Clk., until May 29 for removal of garbage and rubbish.

PHILADELPHIA, PA. — Contract for sprinkling macadamized roads and streets other than those occupied by passenger railways has been awarded to DAVID McMAHON for $40,000.

WASHINGTON, D. C.—Contract for collection and disposal of city refuse, bids for which were received by District Commissioners April 28, have been awarded as follows: Collection and disposal of miscellaneous refuse for two years, S. P. BAYLY, $14,000 per year; removal of ashes and refuse from all buildings under control of District, STUTLER & READY, about $3,000; removal and disposal of night soil for five years, STUTLER & READY, $16,500 per year; collection and disposal of ashes from all save District buildings for one year S. P. BAYLY, $54,000.

STREETS AND ROADS.

The names of parties awarded contracts are printed in capital letters.

STOCKBRIDGE, MASS.—HAMMOND & WALSH, of Pittsfield, Mass., were awarded the contract for state highway in Stockbridge, for $5,577.

GRANBY, MASS.—WILLIAM N. FLINT GRANITE CO., of Monson, Mass., were awarded contract for state highway in this town, for $5,170.

HOLYOKE, MASS.—The BARBER ASPHALT PAVING CO., 114 Liberty St., New York, was awarded contract for 12,000 cu. yds. of asphalt in Holyoke.

DARTMOUTH, MASS.—Contract for constructing section of state highway in Dartmouth was awarded to H. GORE CO., 54 Kilby St., Boston, Mass., for $8,505.

DUXBURY, MASS.—WARREN R. KEITH, of Brockton, Mass., was awarded contract for state highway here, for $5,418.

BEVERLY, MASS.—Contract for a section of state highway at Beverly was awarded to JOHN A. GAFFEY, of Medford, Mass., for $3,019.

PITTSFIELD, MASS.—Contract for constructing road in Pittsfield and Lenox was awarded by State Highway Commissioner to R. E. HUDSON, of Melrose, Mass., for $9,777.

HOLYOKE, MASS.—Board Public Works will pave Maple St. at once with bitulithic. James L. Tigne is Cy. Engr.

WEST BOYLSTON, MASS.—Plans and specifications for about 2¾ miles of macadam road here are on file in office of Engineering News, 220 Broadway, New York. Bids will be opened May 19, as advertised in Engineering News.

NEW YORK, N. Y.—The following bids were opened May 16 by Louis F. Haffen, Pres. Boro. of Bronx, for regulating and grading, setting curbstones, flagging sidewalks, laying crosswalks, building approaches and placing fences in West 259th St.: D. W. Moran, 563 Echo Place, $41,785; Troy Public Works Co., Utica, $39,440; Bellno & Merritt Co., Tuckahoe, N. Y., $48,243; C. W. Collins, Fordham, $41,035; Geo. L. Bailey, 1199 Fulton Ave., $38,950.

OXFORD, N. Y.—Bids are asked until June 1 for macadamizing in this village. L. A. Knott, Village Clk.; Morrison & Farrington, Inc., Syracuse, N. Y., Engrs. (Advertised, Engineering News.)

NEW YORK, N. Y.—Isthmian Canal Commission, Alfred Anderson, Asst. Purchasing Agent, 24 State St., New York, is in the market for 50,000 paving brick, and expects to issue proposals in a few days.

SYRACUSE, N. Y.—We are informed that bids will be received until May 23, 1.30 p. m., for paving Pearl, Fallman and Catherine Sts. with either brick or asphalt. F. J. Schnauber, Cy. Engr.

WELLSVILLE, N. Y.—Bids were received May 9 by F. M. Leonard, Cy. Clk., for paving South Main St. with brick, the three lowest bidders being as follows: Robert W. Henson, Geneva, N. Y., $21,828; John Mahoney, Jamestown, N. Y., $21,886; John R. Baxter, Jr., Utica, N. Y., $21,933.

OXFORD, N. Y.—We are informed that bids will be opened June 1 for 6,700 sq. yds. of macadam and 1,100 cu. yds. of broken stone. Morrison & Farrington, Inc., Engrs., Syracuse, N. Y.

UTICA, N. Y.—Th[illegible]ARBER ASPHALT PAVING CO. has sec[illegible]ontracts for about 16 streets to be pav[illegible]is summer. Cost, about $88,607.

JERSEY CITY, N.[illegible]e Street and Water Board has orde[illegible]as. Van Keuren, Engr., to prepare sp[illegible]ations for paving Newark Ave. with a[illegible] Cost, $35,000.

FLEMINGTON, N.[illegible]ids are asked by Board of Chosen Free[illegible]s until June 7 for macadamizing Old Yo[illegible]d and extending to Ringoes, a distance[illegible]er five miles. J. H. De Mott, Dir.

ATLANTIC CITY, N[illegible]We are informed that the contract for[illegible]g and graveling Albany Ave., about on[illegible] was awarded to CELIAX & CALDWEL[illegible] Philadelphia, Pa. Bids were opened May[illegible]dvertised in Engineering News. J.[illegible]ertson, County Engr.

PITTSBURG, PA.—Th[illegible]partment Public Works awarded contra[illegible] paving six streets with asphalt to t[illegible]AKE ASPHALT MAINTENANCE CO.,[illegible]nnati, O., the prices aggregating $40,1[illegible]

FREEPORT, PA.—Bid[illegible]asked until 1 p. m., May 25, on wire[illegible]pressed, block and hillside block brick [illegible] 9,000 sq. yds. of borough streets. G.[illegible]dley is Engr. (Advertised, Engineering [illegible])

WASHINGTON, D. C[illegible]are informed that the following bids w[illegible]ceived May 12 by District Commissioner[illegible] 14,000 sq. yds. of sheet asphalt pavement[illegible] 23,000 sq. yds. vitrified block gutters a[illegible]rtised in Engineering News: Brennan[illegible]struction Co., foot of 31st St., N. W.,[illegible]154; Cranford Paving Co., Home Life B[illegible] $25,603; Barber Asphalt Paving Co.,[illegible] F St., N. W., $25,927; all of Washington[illegible] D. C. C. B. Hunt, Engr. of Highways.

CENTRAL CITY, W. VA.[illegible]ty has voted a $29,000 bond issue for paving streets. D. W. Frampton, Cy. Engr.

GREENSBORO, N. C.—All bids were rejected by Highway Commissioner of Guilford County for construction of about nine miles of macadam road. John L. King, Secy.

ROCKINGHAM, N. C.—Richmond County has voted the proposed $25,000 bond issue for building roads. Address County Clerk.

AUGUSTA, GA.—THE GEORGIA VITRIFIED BRICK & CLAY CO. has been awarded contract for paving Jackson St. from Broad to Walker St., with vitrified brick. The Southern Paving & Construction Co., of Chattanooga, Tenn., was reported last week as the lowest bidder.

NEW ORLEANS, LA.—Bids are asked by Chas. R. Kennedy, Compt., until June 15 for construction of an asphalt plant for the repair of asphalt streets.

NEW ORLEANS, LA.—Camp St. will be resurfaced from Canal to Calliope St., and the work will probably be under way within four months. W. J. Hardee is Cy. Engr.

MEMPHIS, TENN.—Main St. from Poplar to Beale, will be paved with asphalt, and the paving now on Main St. to Calhoun will be removed. About $40,300 will be expended. J. A. Omberg, Jr., is Cy. Engr.

LANCASTER, O.—Bids will soon be advertised for by Board Public Service for paving Mulberry St. with brick, 23,000 sq. yds. J. M. Wolf, Engr. Cost, $23,000.

MADISONVILLE, O.—Bids are asked until May 23 for resurfacing and repairing improved streets. Estimate quantities: 2,579 cu. yds. stone; 750 cu. yds. fine crushed stone or screenings and 36,000 sq. yds. sprinkling and rolling. J. A. Conant, Vil. Clk.

TOLEDO, O.—Bids are asked by Board Public Service until May 22 for improving two streets. Harry S. Jones, Secy.

DELAWARE, O.—Board Public Service will advertise for bids about June 15 for 18,000 sq. yds of brick paving.

WARREN, O.—Bids are asked by Good Roads Commissioners of Dist. No. 1, C. C. Chryst, Secy., until May 23 for constructing about 13 miles of turnpike roads. H. C. White, County Engr.

EAST CLEVELAND, O.—Bids are asked by H. F. Jordan, Clk. Bd. of Education, 30 Fernwood St., until June 7 for grading lot, constructing sidewalks and driveway for new Shaw High School.

WEST CARROLLTON, O.—Bids will be received by Village Council until May 29 for grading and graveling four streets. John B. McNab, Vil. Clk.

FINDLAY, O.—Bids are asked by County Commissioners until June 1 for constructing five miles of stone pike in Orange Township. A. J. Overholt, Chn.

MANSFIELD, O.—L. A. Keith, Cy. Engr., writes us that bids will be opened June 1 for 6,000 sq. yds. of brick paving; 10,700 ft. of 8-in. and 1,200 ft. of 20-in. pipe sewers; 3,000 sq. yds. of cement or flagstone sidewalks and 500 cu. yds. of concrete wall masonry.

CANTON, O.—F. E. Myers, Cy. Civ. Engr., writes us that about 18,000 sq. yds. of paving will be let by the city later in the season. Second, Hartford, Schwalm, Fulton, Wheeler and Wade Sts. will also be graded, curbed and have new flag walks.

PAINESVILLE, O.—Bids will be received by Board Public Service until May 23, noon, for brick paving about 2,177 sq. yds. and 1,226 lin. ft. of stone curb. H. P. Cumings, Cy. Engr.

CINCINNATI, O.—Bids are asked by Board Public Service until June 5 for paving of Pike St. with bitulithic; est. cost, $8,000.

Bids will be received until June 8 for paving Ringold and Conroy Sts. with bitulithic and brick respectively; est. cost, $24,413. J. E. Breen, Cy. Engr.

CINCINNATI, O.—The following bids were received by Board Public Service, Geo. F. Holmes, Clk., May 10, for improving Washington Ave., with Warren Bros. bitulithic pavements, including about 10,000 cu. yds. of grading and 8,300 sq. yds. of pavement: THE WARREN BROS. CO., Boston, Mass., $24,529 (awarded contract); Nashville Roofing &

Paving Co., Nashville, Tenn., $25,849; Henkel & Sullivan, $24,708, Kirchner Construction Co., 25,0[illegible] Central Bitulithic Paving Co., $25,169, of Cincinnati.

CLEVELAND, O.—Board Public Service awarded contract for paving Woodland Hills Ave. to CLEVELAND TRINIDAD PAVING CO., for $[illegible].

NEW ORLEANS, LA.—Bids are asked by Chas. R. Kennedy, Compt., until May 22 for paving certain streets with asphalt.

GRENADA, MISS.—Bids are asked by C. B. Bolton, Cy. Engr., until June 5 for 25,000 sq. ft. and [illegible],000 sq. ft. of granolitnic sidewalks. Specifications on file in office of Engineering News, 220 Broadway, New York.

LAPORTE, IND.—Resolution was passed by Council to lay sidewalks and macadamize on portions of several streets. H. Burner, C. E.

HARTFORD CITY, IND.—The city will advertise the latter part of this month for bids for 43,000 sq. yds. of paving and five miles of combined cement curb and gutter. Wm. [illegible]haney is Cy. Engr.

CORYDON, IND.—G. C. Doolittle, Engr., informs us that plans and specifications have been submitted on about 25 miles of roads in Harrison Township and will be voted on in about one month. It is expected the same will be adopted. Mr. Doolittle also inform us that the eight mile road that was voted on May 10 failed to carry.

AUBURN, IND.—The City Clerk will soon ask for bids for the improvement and construction of a large amount of cement sidewalk.

BEDFORD, IND.—Bids are asked by County Commissioners until June 5 for construction of 17,875 ft. of gravel or macadamized roads. Walter G. Owens, County Audr.

DETROIT, MICH.—Bids will be received by Department of Parks and Boulevards until May 22, noon, for construction of cement sidewalks and the intersections for one year. R. E. Bolger, Comr., 9 Peninsular Savings Bank Bldg.

DETROIT, MICH.—Bids will soon be received by Department Public Works for paving Wesson Ave., 22 ft. wide; est. cost, $13,294. Wm. H. Maybury, Comr.

RED JACKET, MICH.—Bids are asked by Village Council until May 23 for paving, curbing and constructing concrete walks. N. F. Kaiser, Vil. Clk.

LAURIUM, MICH.—JOHN T. McDONALD, of Laurium, received the contract for construction of 3,000 ft. of cement walks, 6 or 8 ft. wide.

BELVIDERE, ILL.—Plans will be ready and bids received about Aug. 1 for half a mile of macadam paving on Pearl St. Cost, $16,600.

BLOOMINGTON, ILL.—The city contemplate paving Mulberry St. with asphalt, 9,000 sq. yds. Elmer Folsom is Cy. Engr.

ANTIGO, WIS.—Bids are asked by V. P. Rath, County Clk., until June 5 for construction of about 20,000 sq. ft. of cement sidewalks.

JANESVILLE, WIS.—Plans are being prepared by C. V. Kerch, Cy. Engr., for three blocks of macadam and cement curbing.

BURLINGTON, IA.—Seventh St., between Valley and Jefferson, will be paved.

MINNEAPOLIS, MINN.—We are informed that at the regular meeting of City Council May 12, the contract for furnishing city with about 40,000 sq. yds. of vitrified paving blocks was awarded to METRO[illegible]N PAVING BRICK CO., of Canton, O., at 94.5 cts. per sq. yd. delivered f. o. b. cars Minneapolis.

ST. PAUL, MINN.—The ST. PAUL CEMENT WORKS has been awarded contract, at $4,037, for constructing sidewalks, and the BARBER ASPHALT CO., at $10,922, will build roadways in and around new capitol grounds.

ST. CLOUD, MINN.—City Council has passed an order for the paving of St. Germain and other streets in business section.

DULUTH, MINN.—Contract for paving 1st St., bids for doing which were received April 22 by Board Public Works, has been awarded to P. McDONNELL, at $42,656, for creosote block.

HUTCHINSON, KAN.—T. G. Elbury, Cy. Engr., writes us that bids will be received until June 1 for 30,500 sq. yds. of brick and concrete paving, and cement curbing.

FORT LEAVENWORTH, KAN.—Bids are asked until May 24 for constructing granolithic walks, etc., here. Capt. J. E. Normoyle, Q. M., U. S. A

INDEPENDENCE, MO.—Bids are asked by City Council until May 25 for grading on portions of several streets and paving East Pacific St. with vitrified brick. H. H. Pendleton, Cy. Engr.

SEATTLE, WASH.—The following bids were received for paving Renton Hill district: STIRRAT & GOETZ, Epler Block, Seattle, $379,851 (awarded contract); Barber Asphalt Paving Co., Seattle, $379,154; F. McClellan & Co., $396,500; Warren Construction Co., $409,458. The bid of Barber Co. was the lowest, but there were irregularities in it and it was thrown out. Stirrat & Goetz announce that they will erect at once an asphalt plant costing between $40,000 and $50,000. R. H. Thompson is Cy. Engr.

TACOMA, WASH.—We [illegible] informed that the BARBER ASPHALT PAVING CO. was awarded contract for paving North K St., at $36,880. Frank L. Davis, Cy. Engr.

TACOMA, WASH.—All bids for paving of K St. with asphalt were rejected, and new bids will be called for. George Milton Savage Co. was the lowest bidder, at $37,380. Frank L. Davis is Cy. Engr.

LOS ANGELES, CAL.—Grand Ave. is to be widened 10 ft. Harry F. Stafford is Cy. Engr.

REDLANDS, CAL.—C. C. Brown, Cy. Engr., informs us that considerable paving and macadam work are being considered, and the city will probably vote on a bond issue soon.

HIGHLAND, CAL.—A number of new cement sidewalks will be laid by the city.

KINGSTON, ONT.—The Council propose to construct a number of artificial stone sidewalks.

NIAGARA FALLS, ONT.—The brick paving to be done by the city this year will cost upwards of $17,000.

PETROLIA, ONT.—Bids are asked by J. McHattie, Town Clk., until May 22 for construction of cement concrete sidewalks.

BRANTFORD, ONT.—Bids are asked by R. W. Robertson, Chn. Bd. of Wks., until May 25 for construction of about 50,000 sq. ft. of concrete sidewalks. T. Harry Jones, Cy. Engr.

EDMONTON, N W. T.—Extensive sidewalk improvements are to be undertaken and tenders have been invited for supply of the necessary cement.

MANUFACTURING PLANTS.

The names of parties awarded contracts are printed in capital letters.

CLAREMOUNT, N. H.—A. S. Coffin, Arch., 103 Randolph St., Chicago, Ill., let the general contract for factory building, to be erected at Claremount, for Sullivan Machinery Co., 9 Jackson Blvd., to F. M. GARTHWAIT, 138 Washington St., Chicago. Cost, $200,000.

BUFFALO, N. Y.—The E. R. Thomas Motor Co., 1200 Niagara St., will erect a factory building. S. H. Woodruff, Mutual Life Bldg., Arch., will have plans ready about May 18.

SYRACUSE, N. Y.—The H. H. Franklin Automobile Co. will expend $75,000 in enlarging its factory. R. J. Reidpath, Buffalo, is Arch.

NEW YORK, N. Y.—Henry Maetzel & Co., Archs., High and Main Sts., Columbus, O., have plans ready for figures for a four-story cold storage and stable building, 100 × 100 ft., to be erected at 34th St. and 11th Ave., New York, for Hoster Brewing Co., Geo. H. Hoster, Pres., Columbus.

CANASTOTA, N. Y.—We are informed that the Watson Wagon Co. has recently purchased four or five acres of land adjoining its plant and expect to erect several additions. Brick, 3 stories, 45 × 66 ft. and 50 × 288 ft.

John H. Duncan, Arch., 208 Fifth Ave., has plans in progress for a laboratory to sterilize milk to be erected by Nathan Straus, Broadway and 34th St., Building will be erected at 350 East 32d St., and will require extensive milk sterilizing apparatus with boilers, heating apparatus and electric wiring. Brick, 4 stories, 50 × 100 ft. Cost, $100,000.

BUFFALO, N. Y.—The American Radiator Co. has received a building permit to construct a brick foundry, 199 × 200 ft., at 89 Rain St. Cost, $25,000.

PATERSON, N. J.—Chas. Hackmeyer & Co., 103 East 17th St., Paterson, want figures on engines, boilers, generators, motors, shafting, belting, blowers, and stacks for their new silk mill to be erected at Paterson. J. Oscar Bunce, Paterson, is Arch. Brick, 4 stories, 50 × 100 ft. Cost, $50,000.

JERSEY CITY, N. J.—The Greek-American Confectionery Co., 7-11 Marion St., New York, has purchased a site at Johnston Ave., Pine and Monitor Sts., Jersey City, for the erection of a large factory.

MILLHAM JUNCTION, N. J.—The Pennsylvania R. R. Co. has invited bids on construction of boiler shop, 160 × 190 ft.; storehouse, 120 × 425 ft.; bins, 15 × 200 ft.; cleaner building, etc.

READING, PA.—L. H. FOCHT, Baer Bldg., has been awarded contract for an addition to an optical factory for the Penn Optical Co. Brick, 4 stories, 80 × 50 ft. Cost, $12,000.

GEO. W. BEARD & CO., Colonial Trust Bldg., have been awarded contract for knitting mill at Second and Buttonwood Sts., for the Hawk Knitting Co. Brick, 4 stories, 60 × 230 ft.

Reading Iron Co. has invited bids for the erection of a puddle mill. Brick and steel, 1-story, 100 × 225 ft., and 80 × 125 ft. New equipment will be installed including cranes.

PHILADELPHIA, PA.—WM. STEELE & SONS, 16th and Arch Sts., have been awarded contract for an addition to factory at Second St. and Erie Ave., for C. Grubnau. Brick, 1-story, 100 × 50 ft. New equipment will be installed.

Thos. B. Wanamaker, 1317 Market St., has invited bids for factory at Camac and Chancellor Sts. Brick, 5 stories, 40 × 40 ft. Elevator and special equipment will be installed.

The Keystone Lubricating Co., 20th St. and Allegheny Ave., has invited bids for factory. Brick, 2 stories, 40 × 150 ft. New equipment.

F. A. HAVENS & CO., Perry Bldg., have been awarded contract for an addition to factory at Thompson and Sartain Sts., for Schutte & Koerting Co. Cost, $10,000.

Ballinger & Perrot, Archs., 1200 Chestnut St., have invited bids for an addition to foundry at Second and Westmoreland Sts., for Bernstein Mfg. Co.

A. R. RAFF, 1635 Thompson St., has been awarded contract for additions to factory, at Abigail and Amber Sts., for Weimer Bros. Brick, 2 stories, 55 × 100 ft. Cost, $15,000.

LANGHORNE, PA.—Fredk Rumpf & Sons have invited bids on a hosiery mill at Langhorne. Brick, 1-story, 40 × 200 ft. New equipment.

BALTIMORE, MD.—The Miller Fertilizer Co., Lobe Bldg., has awarded contract to JACOB PETERS, 411 St. Paul St., for construction of an addition to its plant; one story high, 80 × 80 ft.

The cooperage plant of Kimball, Tyler & Co., in Highlandtown, a suburb of this city, has been destroyed by fire. Loss, $60,000.

The F. Schulze Mfg. Co., box manufacturer, will erect boiler house of brick, with corrugated-iron roof, at Bush and Ridgely Sts.

Chas. E. Ellicott, of the Ellicott Machine Co., Bush and Severn Sts., will erect five-story beehive manufacturing plant at Frederick and Water Sts. Ellicott & Emmart, Archs, 1101 Union Trust Bldg.

The Montford Machine Casting Co., Montford Ave., has awarded contract to JAMES F. FARLEY, 17 North Frederick St., for construction of an addition to its plant; one story, 46 × 113 ft.; brick with slag roof. Chas. M. Anderson, Arch., 324 North Charles St.

South Baltimore Steel Car & Foundry Co., Howard Carlton, Pres., is contemplating increasing its capital stock from $1,000,000 to $2,000,000 for the purpose of enlarging its operations.

The Holland Mfg. Co., manufacturer of tacks and nails, Bank St. and Central Ave., will erect additions to its plant.

The National Envelope & Papeterie Co., J. L. Bowles, Vice-Pres., Equitable Bldg., is contemplating the erection of a $200,000 paper mill in this city.

Kimball, Tyler & Co., barrel manufacturers, Highlandtown (a suburb of Baltimore), whose plant was recently burned, have awarded contract to THOMAS B. STANFIELD & SON, 109 Clay St., for the reconstruction of entire plant, including cooperage shops, drying kilns, engine and boiler houses and storage shed.

Lauer & Suter, candy manufacturers, 1418 Philpot St., have awarded contract to M. Z. HAMMEN, 1825 McCulloh St., for construction of an addition to their plant; two stories, 20 × 140 ft. Cost, $3,000.

BALTIMORE, MD.—Dodge & Day, Engrs. and Archs., Philadelphia, Pa., have been commissioned by Wm. Knabe & Co., Baltimore (makers of the Knabe piano), to take entire charge of extensive improvements to their plant. The operation includes a new five-story building, 225 × 50 ft.; new dry kiln and wood mill, as well as numerous changes to the present buildings. There will also be a new power plant, which will invoice the purchase of a new engine and generator. Motors will be installed, and considerable electrical work done, as it is the intention to operate the plant electrically throughout.

INWOOD, W. VA.—The Kettering Milling Co. has organized with a capital of $25,000. The company will erect a mill at an early date. No machinery has been purchased as yet. E. B. Kettering, Jr., is Secy.

CHARLOTTE, N. C.—Moffat Machinery Mfg. Co., recently incorporated, with $100,000 cap. stock, will erect brick building having 25,000 sq. ft. of floor space. W. E. Moffatt is Engr.

APEX, N. C.—R. L. Bagley, Apex, wants information and catalogues on machinery and equipment for canning factory and pickling plant.

GREENSBORO, N. C.—According to the "Pink Sheet Daily Bulletin," W. C. Bain will establish a plant here for making hollow concrete building blocks.

MILLEN, GA.—J. M. Edenfield will organize a company to erect a $50,000 brick manufacturing plant here.

COLUMBUS, GA.—Johnson J. Williams, Pres. Williams Mfg. Co., has purchased site on Bay St., and it is stated that the company may erect a syrup and sugar refinery and candy factory.

ACWORTH, GA.—We are informed that plans are being prepared by A. F. Walker, Arch., Austell Bldg., Atlanta, Ga., for a cotton mill, brick, 281 × 75 ft., for Acworth Cotton Mfg. Co.

BIRMINGHAM, ALA.—The Rankin Tuck Paint Co. has increased its capital stock and is in the market for machinery.

KNOXVILLE, TENN.—The Louisville & Nashville Railroad Co. will erect railroad shops in West Knoxville. A. Beckert can give information.

TOLEDO, O.—Conway Steel Range Co., which recently increased its capital is having plans made for an additional brick building, 30 × 120 ft., and a finishing shop, 70 × 200 ft. A foundry building is also under consideration.

COLUMBUS, O.—Henry Maetzel & Co., Archs., Main and High Sts., are reported to have plans for the following work: Addition to shop of the Buckeye Harness Co., three stories, 40 × 83 ft., mill construction, composition roof, electric light and gas heat. Cost, $12,000. 1-story factory building, 100 × 100 ft., for the Columbus Structural Iron Co., E. M. Blase, Clk. Bldg. Com., Ruggery Bldg., brick, slate roof, steel trusses, electric wiring, etc., to cost $12,000. D. Riebel & Sons, Archs., Eberly Bldg., have plans for a 1-story boiler shop, 100 × 250 ft., and a 1-story addition, 50 × 75 ft., to foundry, for Sam Borger. Cost, $15,000.

HAMILTON, O.—Bids will be received by George Rupp until June 1 for a 2-story cold storage plant and packing house 50 × 80 ft. George Barkman, Arch., Second National Bank Bldg., Hamilton.

LANCASTER, O.—Plans will soon be ready for 2-story, 40 × 48 ft., addition to box factory of Frankinburg Bros.

EVANSVILLE, IND.—George L. Mesker will build a 4-story building, 150 × 185 ft. at corner of Water and Ingle Sts. in connection with his iron plant. Est. cost is $75,000.

INDIANAPOLIS, IND.—Laycock Power Co., will soon ask for bids for construction of large factory building. The company is stated to be in the market for new boilers and electric machinery.

DETROIT, MICH.—E. C. Van Leyen and E. A. Shilling, Archs., 47 Peninsular Savings Bank Bldg., are reported ready for figures on a 2-story and basement bakery building, 100 × 82 ft., for the Gordon & Pagel Bread Co., 477 and 479 Chene St. to cost $10,000.

DETROIT, MICH.—Plans have been prepared for a 1 and 2-story manufacturing plant, 165 × 400 ft., for the Detroit Steel Casting Co., John S. Newberry, Gen. Mgr. 1343 Michigan Ave., Detroit. Garrett-Cromwell Engineering Co., Cleveland, O., were Archs.

MUSKEGON, MICH.—J. Loescher Tannery Co. will be ready for figures soon for a 3-story addition, 150 × 50 ft., to its tannery building.

LUDINGTON, MICH.—General contract for 2-story factory building, 30 × 200 ft., boiler and engine house, and 2-story office, blacksmith shop, etc., for the Star Watch Case Co., Ludington, has been let to JOSEPH FREUCHTEL, Kalamazoo. Work amounts to about $50,000.

CHICAGO, ILL.—We are informed that proposed engraving and printing plant of the Western Bank Note & Engraving Co., will be a 110 × 160 ft., 5-story fireproof structure, and will cost $250,000. The est. cost of equipment is $100,000; 66-in. × 18 ft. return tubular boilers, two direct-connected electric generators, two electric elevators, heating will be by indirect blast system. C. A. Eckstrom, 1001 Tacoma Bldg., is Arch.

CHICAGO, ILL.—General contract for factory building to be erected at Kinzie and Green Sts., for Ben. Moore & Co., has been let to F. P. NELSON & SONS, 138 Washington St. It will cost about $25,000. William Strippelman, 153 La Salle St., Arch.

BATAVIA, ILL.—Worst & Shepardson, Archs., Aurora, Ill., are reported to have plans for a shop for the Challenge Co., Batavia, to be two stories, 80 × 220 × 30 ft., brick, concrete foundation, concrete floors, steel roof trusses and girders, plumbing, etc.

CHICAGO, ILL.—Jenney & Mundie, Archs., 171 La Salle St., are preparing plans for a new plant to be erected for the Price Baking Powder Co. at Cass and Indiana Sts. The building will be a fireproof structure, 100 × 100 ft., ground dimensions, built entirely of brick and steel, and will cost $115,000.

Plans have been prepared by H. L. Ottenheimer, Arch., 134 Monroe St., for factory to be erected for A. C. Shank, 134 Clark St., who will receive bids until about June 6. Building is to be four stories and basement, 100 × 75 ft., built of press brick and stone and will cost $50,000.

OTTUMWA, IA.—Oscar Beyer, Arch., 2503 North Ashland Ave., Chicago, Ill., is reported to have completed plans for a brick brewery to be erected at this place at a cost of about $80,000, for the Ottumwa Brewing & Ice Co. Bids on construction will be received by owner, and bids on machinery and equipment will be received by architect.

MINNEAPOLIS, MINN.—The Minnesota Beet Sugar Co.'s factory, at St. Louis Park, was totally destroyed by fire May 2. Loss, $400,000. L. W. Fink, Pres., states that the factory will be rebuilt in time to start operation in the fall.

FREDERICKTOWN, MO.—The American Lead Co. will install a large electrical plant to light buildings, operate shop machinery and run underground pumps.

JEFFERSON CITY, MO.—The A. Priesmeyer Shoe Co. has purchased property on Water St. and will erect shoe factory.

ST. LOUIS, MO.—Widmann, Walsh & Boisselier, Archs., Wainwright Bldg., have prepared plans and will take figures until May 20 for a two-story wash and rack house, 77 × 142 ft., for Brinchworth & Mohler, 18th and Cass Sts. Cost, $30,000.

BEAUMONT, TEX.—French Market Grocery Co., Beaumont, wants bids for the installation of cold-storage plant complete, including machinery and appliances; to be operated by electric motor.

MARBLE FALLS, TEX.—Eastern capitalists have taken steps toward the establishment of a new cotton mill here. Capt. T. S. Reed, of Beaumont, can inform.

MUMFORD, TEX.—Plans have been prepared for the erection of a sugar mill and refinery to be located here. J. R. Austin, of Bryan, can inform.

HOUSTON, TEX.—A plant for dressing and polishing marble is to be built here. Gus Schulte is interested.

ROSEBUD, TEX.—A new cotton gin plant will be built at this place by O. Wells.

TEMPLE, TEX.—A company is being organized here to establish a creamery. Secretary Board of Trade can give information.

MONTREAL, QUE.—The Walter M. Lowney Co., of Boston, Mass., will build a candy factory on William St., Montreal.

PETERBORO, ONT.—The Peterboro Lock Co. has decided to build their new factory on North Water St. Cost, $30,000.

TORONTO, ONT.—The Pease Furniture Furnace Co. will build a foundry between Ossington Ave. and Shaw St. Cost, $25,000.

PRESCOTT, ONT.—A by-law to assist the Palmer Piano Co., of Toronto, to build a factory here was carried by ratepayers.

TORONTO, ONT.—The Massey-Harris Co. will build a new factory at corner of King St. and Strachan Ave., 4 stories and basement. Cost, $125,000.

MISCELLANEOUS CONTRACTS.

The names of parties awarded contracts are printed in capital letters.

IRON WORK.—Little Rock, Ark.—Bids are asked until June 10 for Lock No. 3, Upper White River, Ark. Major Graham D. Fitch, U. S. Engrs.

EXCAVATION, ETC.—Boston, Mass.—Bids are asked until May 29 for excavation, etc., at Lovell's Island, Mass. Col. W. S. Stanton, U. S. Engrs.

DREDGING.—Boston, Mass.—Bids are asked until June 12 for dredging in Lynn Harbor, Mass. Col. W. S. Stanton, U. S. Engrs. (Advertised, Engineering News.)

DREDGING.—Norfolk, Va.—Bids are asked by Bureau Yards and Docks, Washington, D. C., until June 3, for about 25,000 cu. yds. dredging at Navy Yard, Norfolk.

ICE PIER.—Cincinnati, O.—Bids are asked until June 13 for completing concrete ice pier (three sections) in Ohio River at Maysville, Ky. Lt.-Col. E. H. Ruffner, U. S. Engrs.

ICE PIER.—Cincinnati, O.—Bids are asked until June 13 for constructing concrete section of ice pier in Ohio River at Gallipolis, O. Lt.-Col. E. H. Ruffner, U. S. Engrs.

DREDGING.—Wilmington, Del.—Bids are asked until June 10 for dredging in Murderkill River, Del. Capt. C. A. F. Flagler, U. S. Engrs. (Advertised, Engineering News.)

DOCKING.—Port Colborne, Ont.—Bids are asked until May 22 by L. K. Jones, Secy. Dept. Rys. & Canals, Ottawa, Ont., for new docking along the old west pier, at this place.

DRAINAGE CANAL.—Hutchinson, Kan.—Contract for construction of drainage canal for this city has been let to GEORGE WHITE, Arlington, Kan., for about $21,000.

FIRE ENGINES.—New York, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until 10.30 a. m., May 22, for furnishing and delivering five fourth-size steam fire engines.

CEMENT.—Little Rock, Ark.—Bids are asked until June 10 for American Portland cement for Lock No. 3, Upper White River, Ark. Major Graham D. Fitch, U. S. Engrs.

DREDGING.—Milwaukee, Wis.—Board Public Works has awarded contract for the year's dredging to STARKE DOCKING & DREDGING CO. About $15,000 will be expended this year.

STEEL TRESTLES, ETC.—Louisville, Ky.—Bids are asked until June 15 for steel trestles, ec., for Boulte Dam. Capt. H. Burgess, U. S. Engrs. (Advertised, Engineering News.)

TRAVELING CRANE.—Norfolk, Va.—Bids are asked by Bureau Yards and Docks, Washington, D. C., until June 10, for installing 15-ton electric traveling crane at Navy Yard, Norfolk.

DITCH.—La Porte, Ind.—Contract for ditch requiring removal of about 150,000 cu. yds. earth, has been let to NORTHERN CONSTRUCTION CO., George Berkey, Mgr., Elkhart, Ind., for $15,000.

DREDGE WORK.—Dover, Ont.—Contract for about three miles of dredging in Rivard Drain will be sold at Town Hall, Dover, May 30 at 1 p. m. H. N. Bechard, Comr., Chatham, Ont.

CLEARING, GRUBBING.—Burlington, Vt.—Bids are asked until 2 p. m., May 22 for clearing and grubbing land for drill ground at Fort Ethan Allen, Vt. Capt. T. B. Lamoreaux, Q. M.

REVETMENT.—National Soldiers' Home, Va.—Bids are asked by B. A. Beeson, Treas., Southern Branch, N. H. D. V. S., until 12 noon, May 23, for constructing about 850 ft. timber revetment.

RUBBLESTONE.—Boston, Mass.—Bids are asked until June 14 for rubblestone delivered at breakwater at Sandy Bay, Mass. Col. W. S. Stanton, U. S. Engrs. (Advertised, Engineering News.)

SEARCHLIGHT OUTFITS.—Washington, D. C.—Bids are asked until June 20 for furnishing and delivering 36-in. searchlight outfits. Major S. W. Roessler, U. S. Engrs. (Advertised, Engineering News.)

WRECK REMOVAL.—Cleveland, O.—Bids are asked until May 25 for removal of wreck of the steamer Shenango, No. 1, near entrance to Conneaut Harbor, O. Lt.-Col. Dan C. Kingman, U. S. Engrs.

HOISTING ENGINE.—San Francisco, Cal.—Bids are to be opened May 22 by the Chief Quartermaster, Department of California, at San Francisco, for furnishing a hoisting engine and 950 ft. of steel rope.

CONCRETE, ETC.—Cincinnati, O.—Bids are asked by County Commissioners, Eugene L. Lewis, County Audr., until June 9 for concrete, drain pipe, etc., at bridge over Duck Creek in Columbia Township.

DAM.—Pittsburg, Pa.—Contract for constructing Dam No. 4, Ohio River, has been let to BAKER CONTRACT CO., Pittsburg, Pa., for $224,044. Bids were received April 19, by Major Wm. L. Sibert, U. S. Engrs.

FERRY TERMINAL.—New York, N. Y.—Maurice Featherson, Comr. Docks, has awarded contract for building new Staten Island ferry terminal at St. George to G. B. SPEARIN, 17 Battery Pl., New York, for $510,294.

PIER.—Washington, D. C.—Contract for building 40-ft. wide, 120 ft. long pier for District of Columbia, has been awarded to CARTER & CLARK, Washington. About 150 oak piles and 50,000 ft. of lumber will be used.

BOOK STACKS.—Washington, D. C.—Bids are asked until May 31 for furnishing and erecting six iron book stacks in library hall, Army Medical Museum and Library Building. Col. Chas. S. Bromwell. (Advertised, Engineering News.)

LEVEE WORK.—Vicksburg, Miss.—Bids are asked until May 31 for about 1,128,000 cu. yds. levee work in Third District, Mississippi River Improvement. Capt. G. M. Hoffman, U. S. Engrs. (Advertised, Engineering News.)

WRECK REMOVAL.—Jacksonville, Fla.—Bids are asked until June 15 for removing wrecks of the "Ridgewood" and "Commodore Barney" in St. Johns River, Fla. Major Francis R. Shunk, U. S. Engrs. (Advertised, Engineering News.)

WHARF WORK.—New Campbellton, N. S.—Bids are asked by Department Public Works, Fred Gelinas, Secy., Ottawa, Ont., until May 25, for reconstruction of top of wharf and construction of retaining wall, pile and crib work at this place.

LEVEE WORK.—Varner, Ark.—Bids are reported asked by Linwood and Auburn Levee Board, G. Waterman, Chn., until May 24, for enlarging levee in Lincoln County, estimated at about 600,000 cu. yds. Geo. De Benghem, Sarossa, Ark., is Engr.

EXCAVATION WORK.—Washington, D. C.—Bids are asked by the Isthmian Canal Commission until June 15 for excavating an entrance and an inner harbor at Colon, Canal Zone. Theodore P. Shonts, Chn. Canal Comn. (Advertised, Engineering News.)

PIER WORK.—New York, N. Y.—Bids are asked by Maurice Featherson, Dock Comr., until 2 p. m., May 22, for furnishing labor and materials required for preparing for and building a new pier with lateral extensions or bulkhead platforms, near the foot of West 18th St.

READERS' WANTS

If any one is in the market for any engineering or contracting supplies, the first thing to do is to refer to our advertising pages, but if the buyer cannot find what he wants we particularly ask that he notify us at once and we will inform the proper parties without cost to the inquirer. A copy of ENGINEERING NEWS BUYERS' GUIDE will be mailed to any one upon application. This paper will always appreciate any news notes regarding public, or important private work, and will be pleased to receive detailed items. Requests to hold names will be complied with in every case. Do not fail to write our advertisers or us.

CAN-MAKING MACHINERY.—Mexico.—Felton Hermanos, of Magatlan, Mexico, is in the market for the above.

COPPER, ZINC AND SOFT STEEL.—China.—H. H. Bobemeijer & Co., of Shanghai, are reported in the market for the above.

ROOFING, PAINTS, GLASS, ETC.—Brewton, Ala.—Robbins & McGowin Co. is reported as in the market for the above supplies.

Y-LEVEL (20-in.).—Bement, Ill.—W. J. Day, Engr. & Surv., writes us that he is in the market for a Y-level (20-in. preferred).

BLACKSMITH SHOP EQUIPMENT.—Charlotte, N. C.—The Moffatt Machinery & Mfg. Co. is in the market for shop equipment.

CABLEWAY, ETC.—Philippine Islands.—C. W. Carson, Mgr. Dalt Tramway Co., Dalt, P. I., is in the market for an aerial wire tramway, etc.

CONCRETE FENCE POSTS.—New York, N. Y.—H. J. Barker, 26 Broadway, informs us that he wants to learn the names of manufacturers of concrete fence posts.

ASPHALT-PAVING BLOCKS.—Burlington, Vt.—E. F. Moore, Paving Contractor, writes us that he wants the names of manufacturers or dealers of asphalt paving blocks.

GAS ENGINES.—Philadelphia, Pa.—Pepper & Register, 112 No. Broad St., write us that they want the names of makers of gas engines, designed to operate with natural gas.

SAND AND GRAVEL WASHING PLANT.—Baltimore, Md.—A. J. Wills, C. E., 2881 Woodbrooke Ave., writes us that he wants prices and information on sand and gravel washing plant.

CONCRETE BUILDING BLOCK MACHINE.—Lakeville, Conn.—Jos. Parsons, Greenwold, Lakeville, writes us that he wishes data relating to concrete building block machines.

LATHES, PLANERS, DRILLING AND BORING MACHINES.—San Francisco, Cal.—The Current Power Co., 62 Nevada Block, writes us that it is in the market for the above. W. H. Boothroyd, Secy.

CONTRACTORS' SUPPLIES.—Chicago, Ill.—Wm. Artingstall & Co., 440 Rialto Bldg., write us that they are in the market for all kinds of contractors' supplies for sewer, foundation and concrete work, and wish catalogues at once.

STRUCTURAL MATERIAL, MARBLE, TILING, ELEVATORS, ELECTRIC WIRING, FIREPROOFING, ETC.—Knoxville, Tenn.—R. T. Wardrep & Son, contractors, of Knoxville, write us that they are in the market for the above.

CONCRETE BLOCK MACHINERY, ETC.—Tazewell, Va.—C. C. Long, of Tazewell, and the Acme Rock Crushing Co., of Bristol, Va.-Tenn., are in the market for concrete block making machinery; the latter also wants a stone-crushing plant.

HYDRAULIC PUMPS.—Virginia.—Stonewall Tompkins, Dir. Miller Manual Labor School, Miller School P. O., Va., writes us that it is desired to get the addresses of manufacturers of hydraulic pumps, or other appliances, for lifting water for a very small water-works.

AUTOCLAVE, STORAGE TANKS, BOILER, ETC.—New Orleans, La.—E. W. Holden, 1018 Hennen Bldg., writes us that he is in the market for a copper autoclave, or digester, 13 ft. long and 4 ft. wide, five storage tanks of 7,500 gals. capacity each, for holding oil, and a 100-HP. boiler.

PAVING AND TREATMENT OF STREET WEEDS.—Natal, South Africa.—F. M. Jameson, Borough Engr., Box 205, Pietermaritzburg, So. A., writes us that he wants data relating to paving and the treatment of street weeds, which are very tenacious, and force their way through the joints of concrete flags, etc.

CASH REGISTER MACHINE.—Holland.—C. J. Jung & Co., of Amsterdam, write us that they have a client, owning a large weaving mill and dyeing works, who is in the market for a suitable machine to be used in paying wages to its workmen. The total of the wages amount to some thousands of dollars a month. It is suggested that possibly an apparatus in the shape of a cash register would do.

REMOVING BUILDINGS.—Delaware City, Del.—Capt. Louis F. Garrard, Jr., A. Q., U. S. A., writes us that he wants names of firms located in N. J., Dela., and Pa., who make a business of removing buildings, as there are several buildings at Fort Mott, N. J., to be removed from the present site to another site. The advertisement calling attention to this work appears in our proposal page.

ELECTRICAL EQUIPMENT.—It is reported that the Wind Rock Coal & Coke Co., of Wind Rock, Tenn., the Riverhead Farm, of San Marcos, Tex., the Cherokee Marble Works, F. A. Gennett, Mgr., Murphy, N. C., Cumberland Presbyterian Church, of Itasca, Tex., the Porter Distillery Co., Suffolk, Va., the Mayor of Burlington, N. C., W. P. Cooper, Chn., Shelbyville, Tenn., and Chas. S. Wallace, Mayor of Morehead City, N. C., are in the market for various kinds of electrical supplies.

DREDGING.—Geneseo, Ill.—Specifications for dredging for Green River Special Drainage District in Henry and Bureau Counties may be seen at Chicago Office of the Engineering News, Monadnock Block. Bids are asked until June 12, as advertised in Engineering News.

STEEL AND IRON WORK.—Boston, Mass.—Bids were opened by Boston Transit Commission May 11, instead of May 9 as advertised, for 225 tons of steel and iron work for Sec. 5 of Washington St. Tunnel. F. A. Houdlette & Son, 93 Broad St, Boston, at $11,125 being lowest bidder.

PILE DRIVERS, ETC.—New York, N. Y.—Bids are asked by Maurice Featherson, Dock Comr., Pier A, Battery Pl., until 2 p. m., May 22, for furnishing labor and materials required for preparing for and building three pile drivers, four boat landing stages, four diving scows and one derrick.

ROCK REMOVAL.—New York, N. Y.—Following bids were received at U. S. Engineer's Office May 12 for removal of rock in North River; John D. Miller, 39 Cortlandt St., $40,000—complete in eight months; R. G. Packard Co., 130 Pearl St., New York, $43,445—begin work in 90 days and complete in 15 months.

IRON, SPIKES, ETC.—Columbus, O.—Bids are asked by Board Public Works of Ohio, until May 31 for cast and wrought iron, spikes, bolts, etc., locks, lock gates and repairs to dams and other structures; also for superstructures and trunks for three aqueducts. Total estimated cost is $15,000. (Advertised, Engineering News.)

DUMP CARS, SHOVELS, ETC.—Washington, D. C.—Isthmian Canal Commission has awarded the following contracts: 200 additional dump cars, Western Wheel Scraper Co., Aurora, Ill., $210,000; 12 steam shovels, $151,800, with an additional $150 per shovel for spotting device, Bucyrus Steam Shovel Co., Bucyrus, O.; three earth spreaders, $14,607, Mann-McCann Co., Chicago, Ill.

DREDGING.—Buffalo, N. Y.—Following bids were received May 15 by Lt.-Col. H. M. Adams, U. S. Engrs., for 10,000 cu. yds. (scow measurement) dredging in entrance channel and 178,000 cu. yds. (place measurement) dredging in harbor basin: Buffalo Dredging Co., Buffalo, N. Y., $53,230; Daly & Hannan Dredging Co., Ogdensburg, N. Y., $54,220; Lake Erie Dredging Co., Buffalo, N. Y., $46,800.

CONDUIT WORK.—Boston, Mass.—Bids are asked by Charles River Basin Commission, 367 Boylston St., until June 1 for building Section 2 of Boston Marginal Conduit, requiring about 1,800 lin. ft. earth excavation and refill for conduit and appurtenances; 62,000 lin. ft. piles and 2,700 cu. yds. concrete masonry. Hiram A. Miller, Ch. Engr.; Wm. S. Youngman, Secy. (Advertised, Engineering News.)

HEADSTONES.—West Stockbridge, Mass.—The Stockbridge Marble Works, of West Stockbridge, Mass., were the lowest bidders for furnishing the U. S. Army with 10,000 American white marble headstones, bids for which were received May 5. The price was $2.14.

TUNNEL.—Boston, Mass.—COLEMAN BROS., Everett, Mass., and 15 Court Sq., Boston, Mass., were the lowest bidders for building Section 5 of Washington St. Tunnel, bids for which were opened by Boston Transit Commission May 16. Their bid was $483,977.50; alernative, $434,977.50; and the Commissioners awarded the contract to them. Itemized bids will be given under Contract Prices.

CONCRETE SUPERSTRUCTURE.—Buffalo, N. Y.—Following bids were received May 13 by Lt.-Col. H. M. Adams, U. S. Engrs., for concrete superstructure on South Pier at Buffalo: Lake Erie Dredging Co., Buffalo, $16,604; Grattan Contracting Co., Buffalo, $11,247; Continental Engineering & Contracting Co., Buffalo, $16,052; Louis Marburg, Buffalo, $12,413; L. P. & J. A. Smith Co., Cleveland, O., $17,131.

DRAINAGE DITCH.—Onawa, Ia.—We are informed that contracts are to be let June 8 at Onawa for construction of a drainage ditch in Monona and Harrison Counties for the Drainage District. The ditch will be excavated by dredge work to a depth of 12 ft. to 14 ft., and a width of 60 ft. to 70 ft. It will be 25 miles long and about 3,762,000 cu. yds. earth will have to be excavated. Estimated cost is $400,000. R. S. Fessenden is Engr.

TILE, EXCAVATION, ETC.—Farmersville, Ill.—Bids are asked by Drainage Commissioners of Irish Flats, John T. Yard, Member, until 11 a. m., May 23, for furnishing 34,780 ft. 12-in. to 20-in. salt-glazed vitrified drain tile, and 29,750 ft. 6-in. to 10-in. hard drain tile, and for excavating trenches and laying the tile. Bids are wanted also for 15 brick or concrete retaining walls, 15 field bridges and for about 79,600 cu. yds. open ditch work. James W. Dappert, Taylorville, Ill., is Engr.

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CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

*CEMENT, STONE, SAND.—Portland, Me.—Following bids were received at U. S. Engineer's Office May 1 for furnishing 5,000 bbls. Portland cement for Cow Island, (1) being bid for cement in w[illegible] and (2) for cement in sacks: Waldo [illegible] Atlas brand, (1) $1.79, (2) $1.42; Atlantic [illegible] ment Co., Atlas brand, (1) $1.62, (2) $1.41; A[illegible] Portland Cement Co., Alpha brand, (1[illegible]5, (2) $1.35; Berry & Ferguson, Saylors[illegible] (1) $1.79, (2) $1.41; Winslow & Co., Vu[illegible]te brand, (1) $1.85, (2) $1.93. In additi[illegible]ds were taken for furnishing 300 bbls. ce[illegible] for Fort McKinley, 250 bbls. for Fort [illegible], 3,100 bbls. for Fort Preble and 4,500 [illegible] for Kennebec, the bids on these v[illegible] but a few cents from those given o[illegible] Cow Island contract. For furnishing [illegible] stone, the Pigeon Hill Granite Co. a[illegible]kport Granite Co. Rockport, Mass., [illegible]1.85 per ton for furnishing 3,000 tons [illegible] stone for Cow Island, 150 tons for F[illegible] Kinley and 4,500 tons for Kennebec. [illegible] H. Stacey offered to furnish last-na[illegible] requirement for $1.67 per ton. John H[illegible]phy offered to furnish 1,500 tons broke[illegible]e for Fort Williams for $1.74 per to[illegible] Maine & New Hampshire Granite Co[illegible]red to furnish entire amount required [illegible]25 per ton, and Philip H. Doyen bid $[illegible] per ton for 1,500 tons for Fort William[illegible] $1.90 per ton for remainder. For furn[illegible] sand, the following bids were receiv[illegible] Frank W. Mason, $1.05 for 2,000 tons [illegible]rete sand, and $0.90 for 1,500 tons em[illegible]ment sand at Fort Williams; John H. S[illegible] $0.67 for 3,000 tons concrete sand for K[illegible]bec; Rowe Bros. Co., $0.73 for all sand [illegible]ow Island and Fort McKinley, and $0.70 [illegible] Kennebec.

PIPE LAYING, ETC.—Seattle, Wash.—Bids were received April 29 by C. B. [illegible]gley, Secy. Bd. Pub. Wks., for laying water pipe, and contract will be let to STIRRAT & GOETZ, Seattle, their bid being as follows: 100 cu. yds. earth excavation, $0.75; 20 cu. yds. concrete, $10; six hydrants with yokes, $80; 30 hydrants, $75; four 6-in. gates, $[illegible]; 20 20-in. gates, $190; two 10-in. gates, $[illegible]; four 8-in. gates, $25; 10,850 ft. 20-in. c.-i. pipe, Class A, $4.55; 14,910 ft. 20-in machine-banded wood pipe, $2.50; 400 ft. 6-in. c.-i. pipe, $1; fixed estimate, $3,000; 8,000 lbs. special castings, $0.08; reconnecting three existing hydrants, $10; two brick gate chambers, $60; eight cast-iron valve boxes, $7; 100 M. ft. B. M. lumber, $15; 11,000 lin. ft. piles, $0.15; total, $101,073.

*DREDGING.—Newport, R. I.—Following bids were received May 3 by Lt.-Col. J. H. Willard, U. S. Engrs., for dredging at Hyannis and Nantucket, Mass., and jetty work at Nantucket, Mass.; separate contracts—(1) 30,000 cu. yds. at Hyannis, (2) 200,000 cu. yds. at Nantucket; under one contract—(3) at Hyannis, (4) at Nantucket; jetty construction—(5) extension to jetty per ton, (6) repairs to jetty per ton: Rockport Granite Co. and Pidgeon Hill Granite Co., Rockport, Mass., (5) $2.35, (6) $2.85; Morris & Cummings Dredging Co., New York, (1) $0.24, (2) $0.23 9-10, (3) $0.23 9-10, (4) $0.23 9-10; Charles M. Cole, Fall River, Mass, (1) $0.24, (2) $0.33; J. S. Packard Dredging Co, Providence, R. I., (2) $0.35, (3) $0.25, (4) $0.35; E. S. Belden & Sons, Hartford, Conn., (5) $1.73, (6) $1.73. $12,000 is available for the work at Hyannis and $70,000 for the work at Nantucket.

DRIVEN WELLS.—Havre, Mont.—Bids were received May 10 by Mayor and City Council for installation of system of driven wells to provide water supply for this place, the contract being let to A. C. EDWARDS, Havre, at the following bid: 1,800 cu. yds. earth excavation and refill, 58 cts.; 73,000 lumber per 1,000 ft. B. M., in place, $26.50; 640 ft. 2-in. wrought iron pipe in place, 48 cts.; 40 ft. 10-in. standard, cast iron pipe in place, $2.50; 45 ft. 12-in. standard cast iron pipe in place, $3.15; 96 6-in. × 6-in. × 6-in. flanged cast iron tees, 6 ft. long, each $15.76; 48 2-in. well points, brass jacketed, each $1.94; 48 2-in. well points, Morris perfection, each $3.24; 96 2-in. straightway valves, each $2.51; 96 2-in. flange unions, each 44 cts.; 2 6-in. × 6-in. × 12-in. × 12-in. cast iron crosses, each $24.20; 2 6-in. × 6-in. × 10-in. × 10-in. cast iron crosses, each $18.52; 1 10-in. × 12-in. cast iron reducers, each $13.98. Total, $8,362.

*PIPE-LAYING, DAM.—West Point, N. Y.—Following bids were received by Quartermaster, U. S. M. A., May 11, for laying about 32,000 lin. ft. 20-in. cast-iron water pipe and constructing small intake dam containing about 400 cu. yds. rubble masonry; (1) masonry, per cu. yd., (2) laying 20-in. pipe and special per lin. ft., (3) laying 12-in. pipe and specials, (4) laying 6-in. pipe and specials. Where only one price is given it means that that bid covers all three sizes of pipe: Castoe & Warner, Bellaire, O., (1) $6, (2) $1.60; Willauer & Co., Pottstown, Pa., (1) $6, (2) $1.94; E. A. Matthews, New York, (1) $6, (2) $1.72; Frank Pidgeon, Saugerties, N. Y., (1) $5, (2) $2.49, (3) $2.75, (4) $2.50; Albany Material & Construction Co., Albany, N. Y., (1) $7.50, (2) $1.42¼; Charles Cooke, Poughkeepsie, N. Y., (1) $5, (2) $1; Cefalo & Ferguson, Boston, Mass., (1) $4.25, (2) 87 cts., (3) 80 cts., (4) 50 cts.; Thomas E. Vermilye, New York, (1) $9, (2) $1.29, (3) $2, (4) $1; Lloyd Collis, Inc., New York, (1) $6, (2) 67 cts.; Bellman & Sanford, 149 Broadway, New York, (1) $14.65, (2) $1.69; Augusto Benvenuti, New London, Conn., (1) $12.50, (2) $1.62; Thomas O'Hern, Yonkers, N. Y., (1) $10, (2) $1.72; Chester A. Dady, Brooklyn, N. Y., (1) $5, (2) $2.47, (3) $2, (4) $1; Richards & Gaston, New York, (1) $10, (2) $2.25; Robt. E. Mitchell, New York, (1) $5, (2) 79 cts., (3) 75 cts., (4) 75 cts.; Carl H. Dittmar, New York, (1) $9, (2) $1.80, (3) $1, (4) 60 cts.; G. H. Eldridge & Co., Ossining, N. Y., (1) $10, (2) $1.64, (3) $1.50, (4) $1.20; Denniston & Co., Rochester, N. Y., (1) $5.50, (2) $1.60, (3) $1, (4) $1; The Abbott-Gamble Co., New York, (1) $10, (2) $2.32, (3) $1.75, (4) $1.50; Behan & Cavanaugh, New York, (1) $10, (2) $2.17. In addition to the prices named in the bids, the contractor is to be paid $3 per cu. yd. for rock excavation, $5 per cu. yd. for concrete anchorages in place, $1 for each iron or steel rod used to reinforce anchorages and $1 per cu. yd. for dry rubble retaining wall laid on the outer side of line where it runs along hill sides.

PUMPING ACHINERY.—New Orleans, La.—Bids w received April 18 by the Sewerage and W r Board of New Orleans, Geo. G. Earl, G Supt., for furnishing waterworks pum g machinery, the total bids being as fo s: ALLIS-CHALMERS CO., $479,980 (a ded contract); William Tod Co., $482 Holly Mfg. Co., $496,605; Providence ineering Works, $542,000. The principal d sions of the engines proposed by the var bidders on the above contract were as fo :

Bids recei at New Orleans, La., April 18, 1905, by the Sewerage and Water Board of New Orleans, Geo. G. Earl, Gen. Supt., for Furnishing Water Works Pumping Machinery.

	Allis-Chalmers Co.	William Tod Co.	Holly Mfg. Co.	Providence Engineering Wks.
Four 20,0 00-gallon High-Lift Pumping Engines:				
Dia r steam cylinder	28—52—80	30—56—84	30—56½—84	28—54—82
Dia er pump plunger	31 in.	31½ in.	30½ in.	30½ in.
Str	60	60	60	60
Sp (feet per minute)	245	230	250	250
Va area (square inches)	1,335	1,334	1,334	....
tal bid	$287,600	$320,000	$306,106	$336,000
Three Eng s to Operate 40,000,000-gal. Centrifugal Pumps:				
Dia ter of cylinders	12 in. x 28 in.	10½ in. x 28 in.	10½ in. x 28 in.	10 in. x 22 in.
Str	24	16	16	21
tal bid	$16,500	$14,000	$19,687	$16,000
One Engi to Operate 20,000,000-gallon Centrifugal Pump:				
Diameter of cylinders	8 in. x 18 in.	7¾ in. x 21 in.	7¾ in. x 21 in.	7 in. x 16 in.
Stroke	24	11	11	16
Total bid	$4,300	$4,000	$4,090	$5,000
Two Engines to Operate Electric Generators:				
Diameter of cylinders	12 in. x 28 in.	10¾ in. x 29 in.	10¾ in. x 29 in.	10 in. x 22 in.
Stroke	24	16	16	21
Total bid	$13,350	$10,000	$12,815	$12,000
Speed of above six engines (revolutions per minute)	95 — 125	160 — 210	160 — 210	165 — 210
Type of engines	Reynolds-Corliss	Harrisburg	Harrisburg	Rice & Sargent

DREDGING.—Newport, R. I.—Following bids were received May 8 at U. S. Engineers' office for 77,000 cu. yds. dredging in Little Harbor, Woods Hole: Charles M. Cole, Fall River, Mass., 21 cts.; J. S. Packard Dredging Co., Providence, R. I., 23 8-10 cts.; Morris & Cumings Dredging Co., New York, 25 4-10 cts.

RIPRAP.—Duluth, Minn.—Following bids were received May 13 by Major Chas. L. Potter, U. S. Engrs., for furnishing and placing rock for riprap and pier covering, in place in the work, including the removing of crossties and drift wood, 53,000 tons (more or less), per ton of 2,000 lbs.: Donald & Co., Ashland, Wis., $1.06; Geo. A. Wieland, Duluth, Minn., 79 cts.; Sand & Preston, Duluth, Minn., $1.17; Peter Johnson, Duluth, Minn., $1.29; Powell & Mitchell, Marquette, Mich., 96 cts.; Whitney Bros. Co., Superior, Wis., 95 cts.

*DAM.—Wheeling, W. Va.—Following bids were received May 3 by Major Geo. A. Zinn, U. S. Engrs., for building Dam No. 18, Ohio River; (1) Brady Construction Co., Fairmont, W. Va.; (2) Ohio River Contract Co., Evansville, Ind.; (3) Baker Contract Co., Inc., Pittsburg, Pa.:

Bids received at Wheeling, W. Va., May 3, 1905, by Major Geo. A. Zinn, U. S. Engineers, for Building Dam No. 18, Ohio River.

Items.	Quantities.	(1)	(2)	(3)
Dam With Service Bridge.				
Common excavation	55,055 cu. yds.	.90	$1.00	.50
Rock excavation	535 "	3.50	4.00	3.00
Common filling	14,000 "	.50	.75	.40
Stone filling	350 "	3.00	2.50	3.00
Timber	19,839 ft. B. M.	60.00	50.00	50.00
White-oak timber	26,667 "	90.00	80.00	70.00
Yellow-pine timber	154,400 "	80.00	100.00	70.00
Iron and steel	1,526,870 lbs.	.06	.06¼	.06
Reinforcing steel	474,470 "	.06	.04	.05
Concrete	20,448 cu. yds.	7.15	7.75	7.00
Paving	935 "	4.00	7.00	5.00
Curbing	200 lin. ft.	.60	1.00	1.00
Bolt holes in masonry, 2 ins., or less, dia.	100 "	.40	.60	.50
Bolt holes in masonry, more than 2 ins. dia.	800 "	1.50	.60	.75
Galvanized-iron pipe, 1½-in.	2,460 "	.50	.50	.50
Galvanized-iron pipe, 3-in.	2,460 "	.75	1.00	.75
Galvanized-iron pipe, 4-in.	500 "	1.00	1.50	1.00
Totals		$350,373	$371,740	$317,021
Dam Without Service Bridge.				
Common excavation	45,550 cu. yds.	.90	1.00	.70
Rock excavation	200 "	3.50	4.00	3.00
Common filling	14,000 "	.50	.75	.70
Stone filling	350 "	3.00	2.50	3.00
Timber	19,839 ft. B. M.	55.00	50.00	60.00
White-oak timber	26,667 "	90.00	80.00	80.00
Yellow-pine timber	154,400 "	80.00	100.00	70.00
Iron and steel	1,139,500 lbs.	.07	.06¼	.07
Reinforcing steel	13,220 "	.07	.05	.06
Concrete	16,865 cu. yds.	6.65	7.65	6.00
Paving	935 "	4.00	7.00	6.00
Curbing	200 lin. ft.	.60	1.00	1.00
Bolt holes in masonry, 2 ins., or less, dia.	100 "	.40	.60	.50
Bolt holes in masonry, more than 2 ins. dia.	800 "	1.50	.60	.75
Galvanized-iron pipe, 1½-in.	2,460 "	.50	.50	.50
Galvanized-iron pipe, 3-in.	2 460 "	.75	1.00	.75
Galvanized-iron pipe, 4-in.	500 "	1.00	1.50	1.00
Totals		$267,106	$288,912	$249,250

*DREDGING.—Newport, R. I.—Following bids were received at U. S. Engineers' Office, May 10 for dredging in New Bedford Harbor, Mass.: J. S. Packard Dredging Co., 425 Angell St., Providence, R. I., 21 cts.; Chas. M. Cole, Fall River, Mass., 19 cts. About $10,500 is to be expended under the contract.

ASPHALT PAVING.—Seattle, Wash.—Bids were received April 29 by C. B. Bagley, Secy. Bd. Pub. Wks., for asphalt paving, etc., on 18th Ave. and other streets. The contract will be awarded probably to Stirrat & Goetz, as the bid of the Barber Asphalt Paving Co. was incomplete, as they did not submit a bid on removing inlets. The bids received were as follows: (1) F. McLellan & Co., Burke Bldg., Seattle; (2) Barber Asphalt Paving Co., Seattle; (3) Stirrat & Goetz, Seattle; (4) Warren Construction Co.:

Bids received at Seattle, Wash., April 29, 1905, by C. B. Bagley, Sec'y Bd. Pub. Wks., for Asphalt Paving, etc., on 18th Ave. and other streets.

Items.	Quantities.	(1)	(2)	(3)	(4)
Fixed estimate		$7,000.00	$7,000.00	$7,000.00	$7,000.00
Clear and grub	Lump sum	4,000.00	2,000.00	2,300.00	3,000.00
Sub-grading	50,000 cu. yds.	.35	.30	.50	.40
8-in. pipe sewer	330 lin. ft.	1.10	.80	1.00	1.25
Catch basins, 1 inlet	53	50.00	50.00	60.00	65.00
Catch basin, 2 inlet	1	50.00	55.00	65.00	75.00
Curbing, covered gran.	7,550 lin. ft.	1.50	1.40	1.50	1.75
Curbing, concrete	89,800 "	.38	.32	.36	.37
New lumber	10 M. ft. B.M.	16.00	15.00	10.00	15.00
Concrete walks	1,100 sq. yds.	1.25	1.00	1.20	1.25
6-in. cast iron pipe	50 lin. ft.	1.20	1.00	1.00	1.25
Asphalt pavement, 4-in. base	129,010 sq. yds.	2.00	2.00	1.87	2.00
Concrete base, each extra 1 in.	40,930 "	.07	.13	.15	.20
Brick cutters	16,500 "	2.40	2.40	2.40	2.75
Wooden stops	900 lin. ft.	.45	.45	.50	.50
Catch basins, rebuilt	54	30.00	15.00	20.00	50.00
Catch basins, without inlets	7	40.00	35.00	45.00	40.00
Single inlets	7	15.00	16.00	20.00	20.00
Inlets to be moved	230	10.00	......	5.00	7.00
Adjusting catch basin and manhole covers	220	2.00	2.00	2.00	1.00
Alley crossings, concrete	2,300 sq. yds.	1.35	1.25	1.35	1.75
Alley crossings, lumber	5 M. ft. B.M.	16.00	15.00	10.00	16.00
Monument cases	105	10.00	7.00	10.00	10.00
Old lumber	700 M. ft. B.M.	10.00	3.00	1.50	6.00
Fire hydrants	18	75.00	65.00	80.00	90.00
Totals		$396,450	$379,154	$379,852	$409,458

INDUSTRIAL NOTES.

Exhibit of Railway Appliances at the International Railway Congress.

Washington, D. C., May 3 to 14, 1905.

In our report of the International Railway Congress we have referred to the comprehensive and important exhibit of railway machinery and appliances, and we give herewith a classified list of these exhibits, which were displayed by nearly 400 exhibitors.

A. MOTIVE POWER AND EQUIPMENT.

There were only three locomotives, but they were of special interest, illustrating the Walschaert valve gear, the four-cylinder balanced compound system, and the use of oil fuel. Automatic stokers were represented, one of which (shown in operation) is in regular use on some engines of the Cleveland, Cincinnati, Chicago & St. Louis Ry. The air-brake exhibits were extensive and included three devices for the automatic coupling of brake and steam hose (the Barnett, Forsyth and Westinghouse). The car exhibit was notable for the large representation of 50-ton hopper and dump cars for ore, coal and ballast; two of these were specially designed to be used as dump cars or ordinary freight cars, so as to be available in any kind of service. In passenger equipment, there were two steel cars (mail and suburban) with steel sheathing, and day and sleeping cars equipped with different systems of car lighting. Trucks, couplers and other equipment were well represented, as were also methods of car heating and lighting. Wrecking cranes and steam shovels were represented mainly by photographs and drawings, which seemed, however, to indicate to foreign engineers and railway men the great power and capacity of modern American machinery of this class.

1. LOCOMOTIVES.

AMERICAN LOCOMOTIVE CO., New York.—Consolidation locomotive with Walschaert valve gear, for the New York Central Ry.

BALDWIN LOCOMOTIVE WORKS, Philadelphia, Pa.—A four-cylinder balanced compound Atlantic passenger engine for the Pennsylvania R. R., and an oil-burning consolidation freight engine (with Vanderbilt cylindrical tender) for the Southern Pacific Ry.

GENERAL ELECTRIC CO., Schenectady, N. Y.—An electric mining locomotive with conductor cable wound on a drum, and photographs of the powerful high-speed locomotives for the New York Central Ry. Also electric motor trucks.

LOCOMOTIVE APPLIANCE CO., Chicago.—Views of locomotives equipped with the Allfree-Hubbell valves and gear, as described in Engineering News of May 4.

WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa.—Electric motor trucks.

2. LOCOMOTIVE APPLIANCES.

AMERICAN STEEL FOUNDRIES, New York, N. Y.—Cast steel locomotive frames, driving wheel centers, crossheads, coupling rods, etc.

UNION STEEL CASTINGS CO., Pittsburg, Pa.—Cast steel locomotive frames.

INTERNATIONAL NICKEL CO., New York.—Driver and crank axles of nickel steel.

N. L. HAYDEN MFG. CO., Columbus, O.—Drawings of automatic stokers for locomotives.

VICTOR STOKER CO., Cincinnati, O.—Automatic stoker for locomotives, now in use on the Cleveland, Cincinnati, Chicago & St. Louis Ry.; a development of the Day-Kincaid stoker.

THOMAS TANTY CO., New York.—Firebox door.

AMERICAN LOCOMOTIVE APPLIANCE CO., Washington, D. C.—A draft regulator attached to the smokebox door to admit air when the firebox door is opened (so as to prevent the drawing in of cold air at the firebox) and also at each exhaust (so as to cause a more uniform draft through the firebox and tubes).

PYLE-NATIONAL ELECTRIC HEADLIGHT CO., Chicago.—An electric headlight equipment complete, with its steam turbine and electric generator.

STORRS MICA CO., Owego, N. Y.—Mica chimneys for headlights.

W. W. CONVERSE & CO., Palmer, Mass.—Headlight cleaner.

AMERICAN LOCOMOTIVE SANDER CO., Philadelphia, Pa.—Sand jet apparatus.

J. H. WATTERS, Augusta, Ga.—Pneumatic track or rail sander for locomotives.

UNIVERSAL RAILWAY SUPPLY CO., Baltimore, Md.—The "I. X. L," pneumatic rail sander.

SAFETY TRAIN ORDER SIGNAL CO., New York.—The DeWallace apparatus, consisting of a dial placed in the engine cab and having a pointer which travels over the face, and as each stopping place is approached it releases a trip causing a gong to ring and warn the engineman.

3. STAYBOLTS AND TUBES.

AMERICAN IRON & STEEL MFG. CO., Lebanon, Pa.—Staybolts and staybolt iron.

FALLS HOLLOW STAYBOLT CO., Cuyahoga Falls, O.—Samples of hollow staybolts and staybolt iron.

FLANNERY BOLT CO., Pittsburg, Pa.—The Tate flexible staybolt for locomotives.

B. M. JONES & CO., New York.—Samples of the Taylor (English) staybolt iron.

OLD DOMINION IRON & NAIL WORKS, Richmond, Va.—Staybolt iron.

DETROIT SEAMLESS STEEL TUBE CO., Detroit, Mich.—Boiler tubes and specimens showing the various stages of manufacture.

TYLER TUBE & PIPE CO., New York.—Charcoal iron boiler tubes; plain, beaded, expanded and flanged.

4. VALVES AND FITTINGS, ETC.

(See also Miscellaneous.)

AMERICAN STEAM GAGE & VALVE MFG. CO., Boston, Mass.—Steam and air-brake gages, safety valves, and the Thompson indicator.

ASHCROFT MFG. CO., New York.—Locomotive steam gages with auxiliary springs, indicators, valves, etc.

ASHTON VALVE CO., Boston, Mass.—Muffled pop safety valve, double-spring steam gages, vacuum and recording gages, blow-off valves, chime whistles.

L. J. BORDO CO., Philadelphia, Pa.—Swing joints for pipe connections between locomotives and tenders; also blow-off valves.

H. P. BROWN, New York.—The Eccles & Smith steam and air hose couplings.

CONSOLIDATED SAFETY VALVE CO., New York.—Pop safety valves with mufflers.

CRANE CO., Chicago.—Safety valves, steam valves and fittings.

DETROIT LUBRICATOR CO., Detroit, Mich.—The company's latest designs in locomotive lubricators.

HAYDEN MFG. CO., Columbus, O.—Safety valves and relief valves.

HOMESTEAD VALVE MFG. CO., Pittsburg, Pa.—Blow-off valves with a locking device to draw the plug down as it revolves, and so make a tight joint when closed.

LUNKENHEIMER CO., Cincinnati, O.—A locomotive blow-off valve having the main lift valve surrounded by a shell which can be rotated when required in emergency. Also lubricators and brass fittings.

McCORD & CO., Chicago.—The Canna lubricator.

MANNING, MAXWELL & MOORE, New York.—A large display of Ashcroft gages and indicators, Consolidated safety valves, Hancock inspirators, Hayden injectors and ejectors, etc.

MASON REGULATOR CO., Boston, Mass.—Locomotive reducing valves and pump regulators.

WM. SELLERS & CO., Philadelphia, Pa.—Injectors, check valves and locomotive boiler attachments.

PHILIP CAREY MFG. CO., Cincinnati, O.—Magnesia covering for locomotive boilers.

H. W. JOHNS-MANVILLE CO., New York.—Covering and jacketing for boilers.

5. BRAKES AND BRAKE EQUIPMENT.

AMERICAN BRAKE CO., St. Louis, Mo.—Air brakes for driving wheels and engine trucks; automatic brake slack adjuster.

AMERICAN BRAKESHOE & FOUNDRY CO., Mahwah, N. J.—Steel back brakeshoes.

AMERICAN STEEL FOUNDRIES CO., New York.—The Simplex brakebeam.

BARNETT EQUIPMENT CO., Newark, N. J.—Automatic coupler for brake and steam heat pipes.

BUDA FOUNDRY & MFG. CO., Chicago.—Brakeshoes.

CHICAGO RAILWAY EQUIPMENT CO., Chicago.—Brakebeams of various styles; brake slack adjusters.

DAMASCUS BRAKEBEAM CO., St. Louis, Mo.—Brakebeams.

DAVIS PRESSED STEEL CO., Wilmington, Del.—The Davis truss brakebeam.

DUKESMITH AIR BRAKE CO., Pittsburg, Pa.—A brake controlling system by which the driver brakes can be operated with or independently of the train brakes. Also a device for indicating brake defects.

GRIP NUT CO., Chicago.—The Ward brakeshoe.

HEGEMAN METALLIC HOSE CO., Chicago.—Train pipe connections.

MORAN FLEXIBLE JOINT CO., Louisville, Ky.—Train pipe connections.

NEW YORK AIR BRAKE CO., New York, N. Y.—Brake rack with freight train equipment for 70 cars, and high-speed passenger train equipment for 15 cars. The New York combined automatic and straight-air brake system for engine and tender. Also the Forsyth automatic coupler for brake, steam heat and air signal connections.

UNIVERSAL RAILWAY SUPPLY CO., Baltimore, Md.—Brakeshoes.

WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa.—Westinghouse brake equipment and apparatus, automatic coupler for brake and steam heating hose, air compressors, and an instruction car.

WESTINGHOUSE TRACTION BRAKE CO., New York, N. Y.—Air and electric brakes for street railways.

WHEEL TRUING BRAKESHOE CO., Detroit, Mich.—Brakeshoes having inserts of abrasive material for dressing wheel tires and flanges, to wear away flat spots.

6. CARS.

AMERICAN CAR & FOUNDRY CO., St. Louis, Mo.—Steel 50-ton hopper car, 50-ton gondola (weighing 44,000 lbs.), 30-ton box and refrigerator cars (38,200 and 39,300 lbs.); and a tank car with no side sills, the tank being carried directly by the steel center sills and body bolster. Also a suburban car for the Long Island Ry., with steel frame and sheathing.

C. W. BAKER, New York.—Steel car of 8 tons capacity for a single-rail railway system (see Light Railway).

BUDA FOUNDRY & MFG. CO., Chicago.—Track inspection cars and velocipedes.

CAMBRIA STEEL CO., Johnstown, Pa.—A 50-ton hopper bottom steel car (38,400 lbs.) and a 50-ton steel gondola (40,200 lbs.) with flat drop-bottom, and equipped with axles of Coffin toughened steel, and the Westinghouse friction draft gear.

FAIRBANKS, MORSE & CO., Chicago.—Gasoline motor cars for track inspection.

GERMAN-AMERICAN CAR LINES.—Chicago.—Refrigerator car of 40 tons capacity, 56,500 lbs. weight.

GOODWIN CAR CO., New York.—Steel 40-ton dump car (side or center dump), 52,100 lbs. weight.

INGOLDSBY AUTOMATIC CAR CO, St. Louis.—Steel 50-ton dump car.

KALAMAZOO RAILWAY SUPPLY CO., Kalamazoo, Mich.—Steam and gasoline inspection cars.

MIDDLETOWN CAR CO, Middletown, Pa.—A 30-ton flat-car, and a steel-frame narrow-gage 33-ton box car (26,000 lbs.), for Argentina. Also the King-Lawson, 40-ton steel dump car, in which the body is tilted to either side by cylinders operated by compressed air (50,000 lbs. weight).

PENNSYLVANIA R. R.—A standard passenger car, and two steel flat cars for carrying heavy loads (guns and bridge members, wire cable, etc. Each car has four trucks and weighs 59,500 lbs., with a carrying capacity of 60 tons.

PRESSED STEEL CAR CO, Pittsburg, Pa.—Three 50-ton steel cars; box car, 40,000 lbs.; flat car, 33,100 lbs., and gondola car, 41,000 lbs. Also a narrow gage ash car for boiler rooms and locomotive ash pits.

RAILWAY APPLIANCES CO., Chicago.—The Oldsmobile gasoline inspection cars.

RALSTON CAR CO., Chicago.—A flat drop-bottom (side discharge) car designed for general service, and adapted for carrying coal, gravel, cattle, or general freight.

RODGER BALLAST CAR CO., Chicago.—A 50-ton Hart convertible ballast and coal car (side and center dump), 43,500 lbs. weight.

ST. LOUIS CAR CO., St. Louis, Mo.—Private car for Los Angeles & Pacific Electric Ry.; steel framing for floor, sides and roof; four 200-HP. Westinghouse motors; length, 63 ft.

SOUTH ATLANTIC CAR & MFG. CO., Waycross, Ga.—A 30-ton ventilated box car.

STANDARD STEEL CAR CO., Pittsburg, Pa.—Steel mail car (with steel sheathing) for the Erie Ry., and a 50-ton steel hopper car weighing 16½ tons.

WELLMAN-SEAVER-MORGAN CO., Cleveland, O.—A 50-ton steel hopper car of the Wellman-Street pattern.

WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa.—An air-brake inspection car.

7. CAR TRUCKS, BOLSTERS, BEARINGS, WHEELS, ETC.

AJAX METAL CO., Philadelphia, Pa.—Bearings for trucks and motors; babbit bearing metal.

AMERICAN STEEL FOUNDRIES, New York.—Simplex and cast-steel car and tender bolsters; driving and car springs.

J. S. ANDREWS & CO., New York.—Cast steel truck frames.

BENJAMIN ATHA & CO., Newark, N. J.—Bolsters for 40 and 50-ton freight cars and for the trucks of electric motor cars for the Long Island Ry.

C. H. BESLEY & CO., Chicago.—Bearing metals.

BETTENDORF AXLE CO., Davenport, Ia.—Cast steel and I-beam trucks for passenger cars, freight cars and tenders.

J. G. BRILL CO., Philadelphia, Pa.—Trucks for passenger cars and street cars.

CAMEL CO., Chicago.—Journal bearings and the Hartman ball-bearing center plates and side bearings.

CHICAGO RAILWAY EQUIPMENT CO., Chicago.—Body and truck bolsters; the Creco roller side-bearings for passenger and freight cars.

GOULD COUPLER CO., New York.—Journal boxes and steel bolsters.

G. LINDENTHAL, New York.—Rocker side bearings for freight cars, to keep trucks radial on curves; these bearings carry the load, no center bearing being used.

McCONWAY & TORLEY CO., Pittsburg, Pa.—The Buhoup cast steel truck.

McCORD & CO., Chicago.—Journal boxes, and dampeners for car springs.

W. H. MINER & CO., Chicago.—Gravity side bearings.

NATIONAL MALLEABLE CASTINGS CO., Cleveland, O.—Journal box with spherical seat for wedge and brass.

ODENKIRK SWITCH & SIGNAL CO., Cleveland, O.—Ball-bearing truck.

PERRY SIDE BEARING CO., Joliet, Ill.—Side bearings for cars.

C. F. PIERCE, New York.—Freight car bolster and the Lindenthal rocker side bearing for trucks.

PITTSBURG SPRING & STEEL CO., Pittsburg, Pa.—Springs for drivers, freight and passenger trucks, draft rigging and general purposes.

PRESSED STEEL CAR CO., Pittsburg, Pa.—Freight cars with Fox pressed steel and Buckeye trucks.

RAILWAY STEEL SPRING CO., New York.—Coil and elliptical springs; steel tired wheels.

GUSTAVE ROUY, 17 New St., New York.—The Ideal car truck.

SCHOEN STEEL WHEEL CO., Pittsburg, Pa.—Rolled and pressed steel wheels.

STANDARD STEEL WORKS, Philadelphia, Pa.—Solid rolled steel wheels, steel tired wheels, tires, engine and car springs.

STANDARD SECTIONAL AUTOMATIC CAR JOURNAL LUBRICATOR, New York.—A device for keeping the journal uniformly lubricated.

A. C. STILES METAL CO., New Haven, Conn.—Journal bearing metal.

T. H. SYMINGTON CO., Baltimore, Md.—Journal boxes with dust guards, ball bearings for side and center bearings.

U. S. METAL & MFG. CO., New York.—The United States steel truck.

UNIVERSAL RAILWAY SUPPLY CO., Baltimore, Md.—Self-oiling bearings.

8. CAR SEATS, DOORS AND FITTINGS.

HALE & KILBURN MFG. CO., Philadelphia, Pa.—Seats for day, parlor, chair and electric cars.

HEYWOOD BROS. & WAKEFIELD CO., Wakefield, Mass.—Car seats for steam and electric cars.

CURTAIN SUPPLY CO., Chicago.—Car curtains and curtain fixtures.

THE O. M. EDWARDS CO., Syracuse, N. Y.—Spring window sashes, window fixtures, spring rollers, etc.

FEDERAL MFG. CO., Elyria, O.—Handles and fixtures for car curtains.

NATIONAL LOCK WASHER CO., Newark, N. J.—Car curtains, window balances and sash locks.

PANTASOTE CO., New York.—Material for car curtains and upholstering.

EMPIRE SAFETY TREAD CO., Brooklyn, N. Y.—Car and station steps with carborundum strips.

THOMAS KENDRICK, Glenwood Springs, Colo.—Folding car steps.

THE FEDERAL CO., Chicago.—Closets and sanitary specialties for cars.

A. MAJOR, 461 Pearl St., New York.—Water coolers and tanks for passenger cars.

WHITE ENAMEL REFRIGERATOR CO., St. Paul, Minn.—The Bohn system of refrigeration for dining cars.

BARKER MAIL CRANE CO., Clinton, Ia.—Mail-bag catcher, set below the door for use with the Barker low mail crane, which cannot strike a man looking from the cab.

CAMEL CO., Chicago.—Car door fixtures.

CHICAGO CAR SEAL MFG. CO., Chicago.—Freight car seals and sealing punches.

CRAGO & BOHRNSTEDT, Cadott, Wis.—Seal locks for freight car doors.

PITT CAR GATE CO., 127 Fifth Ave., New York.—Balanced folding doors for vestibules, and the Pitt folding gate for car platforms.

THOMAS TANTY CO., New York.—A duplex balanced door for steam and electric cars, etc.

U. S. METAL & MFG. CO., New York.—Car doors.

NATIONAL MALLEABLE CASTINGS CO., Cleveland, O.—Car fittings and appliances.

PRATT & LETCHWORTH CO., Buffalo, N. Y.—Steel and malleable iron castings.

9. CAR MOVERS AND RERAILERS.

APPLETON CAR MOVER CO., Appleton, Wis.—The Atlas car mover.

H. J. GEHR, Waynesboro, Pa.—Car mover.

BUDA FOUNDRY & MFG. CO., Chicago.—Car replacer or wrecking frog.

LOCOMOTIVE APPLIANCE CO., Chicago.—The Newton cast steel car replacer.

RAILWAY APPLIANCES CO., Chicago.—The Fewings car replacer.

UNITED STATES METAL & MFG. CO., New York.—The Victor cast steel and Perfect pressed steel car replacers.

10. COUPLERS AND DRAFT GEAR.

BUCKEYE STEEL CASTINGS CO., Columbus, O.—The Major coupler for freight cars and Ohio coupler for passenger cars. Also the Laycock coupler combining the M. C. B. automatic coupler with the English type of hook and chain coupling.

BRADFORD DRAFT GEAR CO., Chicago.—Draft gears with three and four springs.

FARLOW DRAFT GEAR CO., Baltimore, Md.—Twin-spring and tandem-spring draft gears, with special draft sill attachments.

GOULD COUPLER CO., New York.—Gould couplers for freight and passenger cars, friction-buffer draft gear, tandem-spring draft gear, spring buffers, tender couplers, and M. C. B. coupler adapted to foreign draft gear with hooked drawbars.

McCONWAY & TORLEY CO., Pittsburg, Pa.—The Janney, Kelso and Pitt freight car couplers, Janney and Buhoup three-stem passenger car couplers, and the Kelso tender and pilot couplers.

McCORD CO., Chicago.—Draft gear.

W. H. MINER CO., Chicago.—Draft rigging.

MONARCH COUPLER CO., Detroit, Mich.—The Monarch and Detroit couplers for freight cars and engine pilots.

NATIONAL MALLEABLE CASTINGS CO., Cleveland, O.—Automatic couplers and draft gear for American and foreign cars. The National radial draft gear is pivoted at the bolster and controlled by centering springs, and is designed to reduce flange friction (and resistance) and flange wear on curves.

NILES-BEMENT-POND CO., 111 Broadway, New York.—Gages for couplers and knuckles.

STANDARD COUPLER CO., New York.—The standard steel platform frame and draft gear, and Sessions friction draft gear.

TROJAN CAR COUPLER CO., New York, N. Y.—The Trojan and Junior couplers.

U. S. METAL & MFG. CO., New York.—Combination steel draft rigging and underframe.

W. T. VAN DORN CO., Chicago.—Car couplers used on the New York, Chicago and Boston elevated railways.

WASHBURN CO., Minneapolis, Minn.—The Washburn coupler for freight and passenger cars, tenders and engine pilots.

WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa.—Friction draft car.

WEST VIRGINIA MALLEABLE IRON CO., Point Pleasant, W. Va.—The Ideal emergency car coupler.

BARNETT EQUIPMENT CO., Newark, N. J.—The Barnett automatic coupler for brake and steam heat pipes.

NEW YORK AIR BRAKE CO., New York.—The Forsyth automatic coupler for brake and steam pipes.

WESTINGHOUSE AUTOMATIC AIR & STEAM COUPLER CO., St. Louis, Mo.—Automatic coupler for brake and steam pipes; in use on several trains.

11. CAR LIGHTING AND HEATING.

ADAMS & WESTLAKE CO., Chicago.—The Adlake acetylene and Newbold electric car lighting systems, the latter having a dynamo driven from one of the car axles. A passenger car of the Western & Atlantic Ry. was shown equipped with this system.

WM. C. BAKER CO., New York.—Hot water heating system for cars.

CHICAGO CAR HEATING CO., Chicago, Ill.—The vapor system of car heating.

CONSOLIDATED CAR HEATING CO., Albany, N. Y.—The McElroy electric lighting system, with dynamo driven from the car axle. Steam heating apparatus, and electric heaters for electric cars.

CONSOLIDATED RAILWAY ELECTRIC LIGHTING & EQUIPMENT CO., New York.—Electric car lighting apparatus.

ELECTRIC CONTROLLER & SUPPLY CO., Cleveland, O.—The Deutsch electric car lighting system.

ELECTRIC STORAGE BATTERY CO., Philadelphia, Pa.—Battery cells for train lighting.

GOLD CAR HEATING & LIGHTING CO., New York.—The Edison storage battery system of car lighting. Hot water and direct steam systems of heating.

GOULD COUPLER CO., New York.—Electric car lighting system.

SAFETY CAR HEATING & LIGHTING CO., New York.—The Pintsch oil-gas car lighting system; the company showed a Pullman car equipped with the new Pintsch incandescent lamps.

UNITED STATES LIGHTING & HEATING CO., New York.—Electric lighting system, with dynamo driven from the car axle.

12. STEAM SHOVELS AND WRECKING CRANES.

AMERICAN HOIST & DERRICK CO., St. Paul, Minn.—A 10-ton locomotive crane, handling a grab bucket.

ATLANTIC EQUIPMENT CO., New York.—The Atlantic steam shovel.

BUCYRUS CO., South Milwaukee, Wis.—Photographs of steam shovels, railway pile drivers, and 100-ton railway wrecking cranes.

INDUSTRIAL WORKS, Bay City, Mich.—Photographs of locomotive cranes and wrecking cranes.

INTERSTATE ENGINEERING CO., Cleveland, O.—Photographs of railway pile drivers and wrecking cranes.

MAHONEY RAILWAY DITCHING MACHINE CO., Vincennes, Ind.—Flat car fitted with machinery operated by compressed air for cutting or cleaning track ditches and loading the material on cars.

WALTER McLEOD & CO., Cincinnati, O.—Torches and lights for wrecking, etc.

WELLS LIGHT CO., New York.—Lights for wrecking, etc.

THE MILLER ANCHOR CO., Norwalk, O.—Anchor for cables and lines in wrecking operations.

(For Wrecking frogs see Car Replacers.)

B. MACHINERY AND SHOP EQUIPMENT.

This department of the exhibition was very varied and complete, but does not call for very much comment. It included heavy and light machine tools, specimens of high-speed steels, and a great variety of pneumatic tools and appliances.

13. MACHINERY AND TOOLS.

AJAX MFG. CO., Cleveland, O.—Bolt and nut-making machines; upsetting and forging machines.

AMERICAN MACHINERY CO., Willoughby, O.—Bolt heading, rivet making and upsetting machines.

ARMSTRONG BROTHERS TOOL CO. Chicago.—Tool holders, tool posts, lathe dogs and clamps, etc.

AUTOMATIC VALVE GRINDING MACHINE CO., Knoxville, Tenn.—Machine for grinding air-brake angle cocks.

C. H. BESLEY & CO., Chicago.—Gardner grinder, grinding cloth and paper.

BUFFALO FORGE CO., Buffalo, N. Y.—Forges and down-draft furnaces, fans for mechanical draft.

BULLARD MACHINE TOOL CO., Bridgeport, Conn.—A vertical turret lathe.

CLING-SURFACE CO., Buffalo, N. Y.—Material for surfacing belts and transmission ropes.

DAVIS EXPANDING BORING TOOL CO., St. Louis, Mo.—Boring machine.

DRAPER MFG. CO., Port Huron, Mich.—Pneumatic flue welder and valve facing tools.

WALTER H. FOSTER CO., New York.—The Lassitter header for staybolts.

HILL, CLARKE & CO., Boston, Mass.—Radial drill, shaping machine, drill press.

KRIPS-MASON MACHINE CO., Philadelphia, Pa.—Washer punching machine.

LANDIS MACHINE CO., Waynesboro, Pa.—Pipe and bolt cutters and nut tappers.

LANDIS TOOL CO., Waynesboro, Pa.—Grinding machines and samples of work.

LODGE & SHIPLEY MACHINE TOOL CO., Cincinnati, O.—A 24-in. lathe, geared directly to an 8-HP. Bullock electric motor.

WALTER McLEOD & CO., Cincinnati, O.—Tube welder and tire expander.

MANNING, MAXWELL & MOORE, New York.—Milling machine and other machine tools.

MORSE TWIST DRILL CO., New Bedford, Mass.—Drills, reamers and taps.

NILES-BEMENT-POND CO., New York.—A 400-ton hydraulic wheel press, 1,100-lb. steam hammer, 42-in. planers and lathes with electric motors; also smaller lathes, slotters, etc., and a set of small tools, taps, dies, reamers and gages.

NORTON GRINDING MACHINE CO., Worcester, Mass.—The Norton machine and samples of work done.

OIL AND WASTE SAVING MACHINE CO., Philadelphia, Pa.—Machinery for cleaning dirty waste and recovering the oil.

OLIVER MACHINERY CO., Grand Rapids, Mich.—Wood working and pattern shop machinery.

RAILWAY MATERIALS CO., Chicago.—Tube welding furnace and Ferguson oil-burning forging furnace.

F. E. REED & CO., Worcester, Mass.—A belted and motor-driven lathe.

ROBINS CONVEYING BELT CO., New York.—Conveyor with 16-in. belt, loader and automatic tripping device.

ROCKWELL ENGINEERING CO., New York.—Double chamber melting furnace.

H. B. UNDERWOOD & CO., Philadelphia, Pa.—Machines for boring cylinders, facing valves, turning crank-pins, etc.

WELLS LIGHT CO., New York.—Tube welding and tire expanding apparatus.

R. D. WOOD & CO., Philadelphia, Pa.—Hydraulic riveting machine with vertical jaws; gap, 18 ft. 6 ins. deep; pressure, 150 tons.

14. HOISTING MACHINES.

AMERICAN HOIST & DERRICK CO., St. Paul, Minn.—Locomotive crane, steel frame derrick and three hoisting engines.

BUCYRUS CO., South Milwaukee, Wis.—Locomotive and traveling cranes.

CHICAGO PNEUMATIC TOOL CO., Chicago.—Pneumatic hoists with automatic brake.

HOLLAND CO., Chicag[illegible]e Dake pneumatic hoist for cranes, e[illegible]

INDUSTRIAL WORKS, [illegible] City, Mich.—Locomotive cranes.

INTERSTATE ENGINE[illegible]G CO., Cleveland, O.—Locomotive and [illegible]king cranes.

SPRAGUE ELECTRIC [illegible] New York.—Electric trolley hoist.

YALE & TOWNE MFG [illegible] New York.—Chain and electric hoists, [illegible]eling trolley hoists.

15. PNEUMATIC M[illegible]INERY.

AURORA AUTOMATIC M[illegible]HINERY CO., Aurora, Ill.—Air turbine c[illegible]r saw; pneumatic drills, riveting hamm[illegible]ube expanders, etc.

CHICAGO PNEUMATIC [illegible]L CO., Chicago.—Air compressors and [illegible]matic drills, hammers, riveters and p[illegible] machines.

INGERSOLL-SERGEANT [illegible]LL CO., New York.—Air compressors, ro[illegible]rills, and a variety of pneumatic tools.

OTTO GAS ENGINE W[illegible] Chicago.—Air compressors.

RAND DRILL CO., New [illegible]—Air compressors and a variety of [illegible] drills and pneumatic tools and applia[illegible]

16. ENGINES AND POW[illegible] PLANT.

GENERAL ELECTRIC CO[illegible]chenectady, N. Y.—The Curtis steam turb[illegible]

FAIRBANKS, MORSE & [illegible] Chicago.—Gas and gasoline engines.

HOLLAND CO., Chicago.—[illegible] Dake compressed air engine.

KERR TURBINE CO., Well[illegible]ille, N. Y.—The Kerr non-condensing turb[illegible]

OTTO GAS ENGINE WORKS, Chicago.—Gas and gasoline engines.

WESTINGHOUSE MACHINE CO., Pittsburg, Pa.—A Parsons 600-KW. steam turbine.

17. TOOL STEELS.

EDWIN R. KENT & CO., Chicago.—Allen steel and tools made of this steel.

P. A. FRASSE & CO., New York.—The Poldi high-speed steel.

B. M. JONES & CO., Boston, Mass.—The Mushet, Clyde and other special high-speed steels of English make.

C. RAILWAYS.

There were few exhibits relative to railway construction, but a special type of light railway attracted considerable attention.

18. LIGHT RAILWAYS.

C. W. BAKER, 220 Broadway, New York.—In the "Economic" railway system a single central rail carries the greater proportion of the load, transmitted to it by double-flanged wheels at the ends of the car. Small flat-tired balancing wheels on each side run on narrow paths of macadam or gravel. The car has a very low center of gravity, and the locomotive has horizontal driving wheels which grip the sides of the rail head.

D. TRACK AND MAINTENANCE-OF-WAY EQUIPMENT.

The most notable exhibits in this department were the rails and frogs of nickel steel and manganese steel. As the manganese steel cannot be rolled, rails must be cast, and their cost is too high to permit of their use except in very special cases, as on some sharp curves of the Boston elevated railways. In some of the frogs, the hard metal is used only as fillers at the sides, but in others the point also is of the hard metal. The manganese-steel castings must be accurately made, so as to require little or no finishing, as the metal cannot be machined and can only be finished by grinding, and this is very expensive with such hard material. There were several styles of concrete ties and steel ties, and also wooden ties treated by different preservative processes. The exhibits of tie-plates presented little novelty but represented appliances in general use. There were no less than three rail joints with splice bars having inwardly inclined flanges below the web (Bonzano, Carnegie and 100%), but none of these use a base support. The Wolhaupter joint has similar but smaller flanges on the splice bars, but these are locked to a base plate. There were few spikes to be seen, but they included an American style of screw spike, and a French coil spring device to be inserted in the hole to prevent injury of the wood, and to increase the hold of the screw spike. There were two switches operated by electricity, and a device for protecting the ends of switch rails from being struck by loose chains or brakebeams attracted considerable attention. There were various designs of switchstands, switch signals, derailers for side tracks, and two styles of switches giving an unbroken main rail. On the whole, these exhibits made a good representation of American track construction and equipment.

19. RAILS.

PENNSYLVANIA STEEL CO., Steelton, Pa.—An interesting collection of templates of rail sections and splice bar sections for American and foreign railways.

WM. GOLDIE, Pittsburg, Pa.—Girder rails.

INTERNATIONAL NICKEL CO., New York.—Nickel steel rails, of which 11,800 tons are now in use on several railways; some of these are Bessemer steel rails with 3½% nickel, and have outworn ordinary rails in the same track.

WM. WHARTON, JR., & CO., Philadelphia, Pa.—Manganese steel rails for curves on track carrying heavy traffic.

CONTINUOUS RAIL & MFG. CO., Law Building, Indianapolis, Ind.—This is once more the old design of compound rail having a flangeless T center bar with a continuous angle bar on each side, all bolted together and breaking joint.

20. RAIL JOINTS, TIE PLATES AND FASTENINGS.

AMERICAN IRON & STEEL MFG. CO., Lebanon, Pa.—The Harvey grip-thread track bolts; screw spikes and common bolts.

AMERICAN STANDARD RAIL JOINT CO., Bloomington, Ill.—An insulated rail joint.

BEAVER DAM MALLEABLE IRON CO., Beaver Dam, Wis.—Tie plates, rail brace and clamps to prevent creeping or spreading of rails.

BELLE CITY MALLEABLE IRON CO., Racine, Wis.— L. & S. clamp to prevent creeping of ra also rail braces.

H. P. BRO New York.—Rail bonds for electric ra s, and for steam railways using a rail t for signals.

CAMBRIA L CO., Johnstown, Pa.—The Thompson 0%" rail joint, with flanges on the splic rs extending inward and downward be the rail. Also the same joint arranged an insulated joint.

CARNEGIE EL CO., Pittsburg, Pa.—The Duquesn nt, which has splice bars similar to t of the 100% and Bonzano joints.

CONTINUO RAIL JOINT CO., Newark, N. J.—This h lice bars shaped to fit under the rail and e as base supports. It was shown appli steam and street railway rails of vari sections and weights. Also bonded, insul and compromise joints, the latter to con rails of different weights.

DILWORT PORTER & CO., Pittsburg, Pa.—Tie-plat spikes and a press for fixing two tie-plate a tie simultaneously.

WM. GOL Pittsburg, Pa.—Rails with base plates a tie plates.

WM. GOL JR., & CO., West Bay City, Mich.—Mach made tie plugs for spike holes.

HART STEEL CO., New York.—Tie plates.

DAVID E. OLDS, Newark, N. J.—A substitute for spike fastenings. A U-bolt passing under the tie and parallel with the rail holds the inside flange, while the horizontal leg holds a bar that extends under the tie and is attached to a clamp holding the outer flange.

LORAIN STEEL CO., Philadelphia, Pa.—Electrically welded joints for street railway track.

INDEPENDENT RAILROAD SUPPLY CO., Chicago.—Tie plates and the Wolhaupter rail joint with splice bars locked to the base plate.

RAILROAD SUPPLY CO., Chicago.—Tie plates and a grade crossing alarm signal.

RAILWAY APPLIANCES CO., Chicago.—The Bonzano rail joint, with splice bars having inwardly inclined flanges beneath the rail. Also clamps to prevent creeping of rails.

RUSSELL, BURDSALL & WARD NUT & BOLT CO., Port Chester, N. Y.—Railway bolts and nuts.

J. THIOLLER, Paris, France.—A steel spiral coil sleeve to be inserted in spike hole to increase the hold of screw spikes.

WEBER RAILWAY JOINT MFG. CO., New York.—This has one flat splice bar and one L-shaped combination splice bar and base plate, with wooden filler block. Shown applied to steam and street railway rails, compromise joints and insulated joints.

AMERICAN DEVICE MFG. CO., New York.—The Absolute lock nut.

AMERICAN LOCK NUT CO., Boston, Mass.—The Burrows nut lock with nut slotted for key to indent thread of bolt.

COLUMBIA NUT & BOLT CO., Bridgeport, Conn.—This nut has a taper threaded split sleeve which it clamps upon the bolt.

GRIP NUT CO., Chicago.—The Ward grip nut.

NATIONAL LOCK WASHER CO., Newark, N. J.—Spring washer nut lock.

IRON CITY TOOL WORKS, Pittsburg, Pa.—The Eureka spring nut lock.

SAFETY NUT LOCK CO., Newark, N. J.—The Safety nut lock.

U. S. METAL & MFG. CO., New York.—The Columbia nut lock.

VERONA TOOL WORKS, Pittsburg, Pa.—The Verona nut lock.

21. TIES.

C. BUHRER, Sandusky, O.—Reinforced concrete tie, as used on the Lake Shore & Michigan Southern Ry. and several other roads.

CARNEGIE STEEL CO., Pittsburg, Pa.—The Duquesne steel tie, of I-beam section, 5½ ins. high, 4½ and 8 ins. wide at top and bottom; 19½ lbs. per ft.; bolted clamps, with wooden shims and fiber bushings where used with automatic block signals. In use on the New York Central Ry. and other.

CHENOWETH & McNAMEE, Broooklyn, N. Y.—Concrete ties reinforced by a coil of steel netting; in use on the New York Central Ry. and New York Subway.

CONSOLIDATED CROSS TIE CO., New York.—Wooden ties shaped by the Hege hewing machine and treated by the Giussani preservative process.

A. H. JACKSON, Fremont, O.—Models of cross ties of reinforced concrete, with U-bolts under the rails. Also concrete stringers or longitudinals, with similar fastenings and steel tie bars.

GEO. H. KIMBALL, Chicago.—The Kimball reinforced-concrete tie, with two rail blocks connected by a pair of steel channels. Used on the Pere Marquette Ry. and other roads.

C. LEMBCKE & CO., New York.—Wooden ties treated by the Rueping process.

NORFOLK CREOSOTING CO., Norfolk, Va.—Creosoted ties, timbers, etc.

C. S. SEITZ, Tiffin, O.—Steel tie, of channel section.

JOHN G. SNYDER, Altoona, Pa.—Model of steel tie.

SOUTHERN EXCHANGE CO., New York.—Ties, telegraph poles, etc.

22. FROGS AND SWITCHES.

ADAMS & WESTLAKE, Chicago.—Switch lamps.

AMERICAN VALVE & METER CO., Cincinnati, O.—Switchstands and a device to house the ends of switch rails to protect them from chains, loose brakebeams, etc.

BUDA FOUNDRY & MFG. Co., Chicago.—Frogs and switches and switchstands.

CLEVELAND FROG & CROSSING CO., Cleveland, O.—The Lucas frog with hard metal inserts.

DRESSEL RAILWAY LAMP WORKS, New York.—Switch lamps.

ELLIOTT FROG & SWITCH CO., East St. Louis, Ill.—Split switches, spring and rigid frogs, switchstands.

GENERAL RAILWAY SIGNAL CO., Buffalo, N. Y.—Electrically operated switches.

LORAIN STEEL CO., Philadelphia, Pa.—Frogs with manganese steel castings for point and sides of throat; crossing frogs with intersections of the same material. About 10% manganese.

INTERNATIONAL NICKEL CO., New York.—Frog with nickel-steel wearing plates fitted inside the throat.

LAWRENCE SWITCH CO., Duluth, Minn.—A switch with vertically moving rails; one in use at Duluth.

LOCOMOTIVE APPLIANCE CO., Chicago.—The Emyth and New Century derailing switches for sidetracks, operated from interlocking plant or from switchstand.

MORDEN FROG & CROSSING WORKS, Chicago.—The Hansel crossing frog device to give continuous rail in either direction. The Security switchstand, interlocked with home and distant signals, or electrically controlled by telegraph operator at the station. Also ordinary switchstands.

ODENKIRK SWITCH & SIGNAL CO., Cleveland, O.—Switchstand.

PENNSYLVANIA STEEL CO., Steelton, Pa.—Switches and switchstands; frogs up to Nos. 20 and 24. Frogs with reinforcement of wearing blocks of manganese steel.

RAMAPO IRON WORKS, Hillburn, N. Y.—The MacPherson switch and frog with unbroken rail; split switches, rigid and spring-rail frogs, switchstands.

UNION SWITCH & SIGNAL CO., Swissvale, Pa.—Electrically operated switch.

WM. WHARTON, JR., & CO., Philadelphia, Pa.—The Wharton switch, with unbroken main track rail; frogs with manganese steel facings or inserts, including a No. 20 frog.

23. TRACK TOOLS AND SUPPLIES.

AMERICAN TRACKBARROW CO., Lowell, Mass.—Wheelbarrow with grooved wheel to run on the rail.

ARMSTRONG BROTHERS TOOL CO., Chicago.—Claw bars with inserted claws of hard steel.

BELLE CITY MALLEABLE IRON CO., Racine, Wis.—The Murray jack.

BUDA FOUNDRY & MFG. CO., Chicago.—Jacks, drills, velocipedes and crossing gates. Track tools.

DUFF MFG. CO., Pittsburg, Pa.—Barrett jacks for various purposes, and Duff roller-bearing jacks.

FAIRBANKS, MORSE & CO., Chicago.—Jacks, drills, velocipedes, hand cars, etc.

HUBBARD & CO., Pittsburg, Pa.—Track tools.

HUSSEY-BINNS SHOVEL CO., Pittsburg, Pa.—Track and tamping shovels, scoops, ditching spades.

IRON CITY TOOL WORKS, Pittsburg, Pa.—Track tools.

KALAMAZOO RAILWAY SUPPLY CO., Kalamazoo, Mich.—Rail drills, tools, hand and push cars.

KEYSTONE LANTERN CO., Philadelphia, Pa.—Lanterns.

MAHONEY RAILWAY DITCHING MACHINE CO., Vincennes, Ind.—Track ditching machine.

MERRILL-STEVENS MFG. CO., Kalamazoo, Mich.—Track and other jacks.

OTTO GAS ENGINE WORKS, Chicago.—Track jacks and tools.

RAILWAY APPLIANCES CO., Chicago.—Track inspection cars.

VERONA TOOL WORKS, Pittsburg, Pa.—Track tools.

24. FENCES AND CATTLEGUARDS.

AMERICAN STEEL & WIRE CO., Chicago.—Steel wire fencing.

BRULEY STEEL FENCE POST CO., Milwaukee, Wis.—A steel bar inserted into a steel point driven into the ground. Slots hold the fence wires.

BUDA FOUNDRY & MFG. CO., Chicago.—Crossing gates.

INTERNATIONAL FENCE & FIREPROOFING CO., Columbus, O.—Wire fencing and gates.

MERRILL-STEVENS MFG. CO., Kalamazoo, Mich.—The Cook and combination cattleguards, with longitudinal flat steel bars.

NATIONAL SURFACE GUARD CO., Chicago.—Cattleguards with flat steel bars on edge.

S. H. SUMMERSCALES, Winnipeg (Canada).—A hinged cattleguard; as an animal steps upon it, the other end rises like a fence

McCORD & CO., Chicago.—The Gibraltar bumping post.

BARKER MAIL CRANE CO., Clinton, Ia.—A dwarf mail crane, the bag being caught by a catcher below the door of the mail car. This is so low as not to be a danger to enginemen looking out of the cab windows.

RAILROAD SUPPLY CO., Chicago.—Crossing signal alarms.

E. SIGNALING.

There were some very complete exhibits of block signaling and interlocking plants, and the tendency towards the adoption of electric systems, as distinguished from electro-pneumatic was very marked. The electro-gas system is of special interest and is already in use to some extent.

25. SIGNALS.

AUTOMATIC RAILWAY SIGNAL CO., Montreal, Canada.—A new style of automatic block signal system with semaphore signal.

GENERAL ELECTRIC CO., Schenectady, N. Y.—The Herman automatic electric semaphore signal for block signaling.

GENERAL RAILWAY SIGNAL CO., Buffalo, N. Y.—An extensive exhibit, including block and interlocking signal apparatus, electric automatic and manual controlled block signals, and electric and pneumatic interlocking systems.

HALL SIGNAL CO., New York.—Hall automatic disk and semaphore block signals, electric motor and electro-gas automatic semaphores, all operated on the normal danger system. The Hall train-staff system, and also slotted signals, signal indicators, etc.

KINSMAN BLOCK SYSTEM CO., New York.—An automatic block system for steam and electric railways, with apparatus for automatically shutting off power and applying brakes if a train or car passes a home signal at the "stop" position.

MORSE CODE TELEGRAPH SIGNAL CO., Milwaukee, Wis.—Selective telegraph instruments, in connection with semaphores, lamps and whistles for use in yards.

UNION SWITCH & SIGNAL CO., Swissvale, Pa.—The electric and electro-pneumatic block signals, electric interlocking and train-staff systems adapted to high-speed service.

26. SIGNALING APPARATUS.

H. P. BROWN, New York.—Special plastic bond for rails where the rail circuit is used for automatic block signaling.

AMERICAN RADIATOR CO., Chicago.—Hot water heating apparatus for signal cabins.

ADAMS & WESTLAKE CO., Chicago.—Signal lamps.

DRESSEL RAILWAY LAMP WORKS, New York.—Signal lamps.

RAILROAD SUPPLY CO., Chicago.—Alarm signals for grade crossings.

SAFETY TRAIN ORDER SIGNAL CO., New York.—Alarm signal in engine cab. (See also 20. Rail Joints, for insulated joints.)

F. BRIDGES, BUILDINGS, ETC.

The exhibits relative to bridges were not extensive, and in regard to buildings and structures the principal feature was the varied and extensive application of reinforced concrete construction. Roundhouse and turntable equipment was represented, as was also water station equipment, the most notable feature in this department being the number of water softening processes and the large extent to which these are in actual use.

27. BRIDGES.

PENNSYLVANIA STEEL CO., Steelton, Pa.—Drawings of several large and interesting bridges, including Scherzer rolling-lift drawbridges and the Blackwell's Island bridge over the East River at New York. One of the immense pins for the chord connections of this latter bridge was exhibited, together with one of the bottom chord sections, 59 ft. long, weighing 120 tons.

GEO. P. NICHOLS & BRO., Chicago.—Machinery for operating drawbridges with electric motors.

ST. LOUIS EXPANDED METAL FIREPROOFING CO., St. Louis, Mo.—Models and photographs of bridges of concrete reinforced with steel corrugated bars.

28. BUILDINGS.

ASSOCIATION OF EXPANDED METAL COMPANIES, New York.—Concrete reinforced with expanded metal.

CHENOWETH & McNAMEE, Brooklyn, N. Y.—Piles and columns of reinforced concrete.

INTERNATIONAL FENCE & FIREPROOFING CO., Columbus, O.—The American concrete mixer, with blades revolving on a horizontal shaft passing through a drum. When the charge is mixed, the drum is rotated to bring its opening to the bottom, dumping the concrete without stopping the mixing blades. Also concrete reinforcement with steel wire netting.

LOCK JOINT PIPE CO., 346 Broadway, New York.—Concrete pipe.

MERRITT & CO., Philadelphia, Pa.—Concrete construction with reinforcement of expanded metal.

MUNICIPAL ENGINEERING & CONTRACTING CO., Chicago.—The Chicago cubical concrete mixer, which has no interior fittings and can be charged and dumped while running.

RAYMOND CONCRETE PILE CO., Chicago.—The Raymond pile and methods of driving.

ST. LOUIS EXPANDED METAL FIREPROOFING CO., St. Louis, Mo.—Photographs of retaining walls and other structures of concrete reinforced with Johnson's corrugated steel bars.

TRUSSED CONCRETE STEEL CO., Detroit, Mich.—The Kahn system of reinforced concrete construction.

PHILIP CAREY MFG. CO., Cincinnati, O.—Roofing material.

EASTERN GRANITE ROOFING CO., New York.—Samples of "granite" composition roofing.

H. W. JOHNS-MANVILLE CO., New York.—Roofing material and smokejacks for roundhouses.

STANDARD PAINT CO., New York.—Ruberoid roofing.

PAUL DICKINSON, Chicago.—Roundhouse smokejacks of cast-iron and "vitribestos."

DRAPER MFG. CO., Port Huron, Mich.—Motor for turntables.

HOLLAND CO., Chicago.—The Dake pneumatic motor for turntables.

GEO. P. NICHOLS & BRO., Chicago.—Turntables and transfer tables operated by electricity.

WILSON MFG. CO., New York.—Rolling, sliding and swinging doors for roundhouses, freight houses, piers, etc.

A. E. RENDLE, New York.—Skylight and side lighting for shops, etc., on the Paradigm system.

WESTINGHOUSE, CHURCH, KERR & CO., New York.—Plans for shops and power plants.

AMERICAN RADIATOR CO., Chicago.—Hot water heaters for stations, etc.

MERRITT & CO., Philadelphia, Pa.—Metal lockers for shops.

S. F. BOWSER & CO., Fort Wayne, Ind.—Oil house equipment for shops; oil and gasoline storage.

29. COALING STATION PLANT.

AMERICAN HOIST & DERRICK CO., St. Paul, Minn.—Locomotive crane handling self-loading coal bucket.

ROBINS CONVEYING BELT CO., New York.—Rubber belt conveyors, with adjustable tripper, loading hopper, etc.

INTERSTATE ENGINEERING CO., Cleveland, O.—Coaling plants and coal-handling cranes.

30. WATER STATION PLANT.

AMERICAN VALVE & METER CO., Cincinnati, O.—The Poage water column, with balanced drop spout to enter the tender manhole.

FAIRBANKS, MORSE & CO., Chicago.—Water columns, with rigid and flexible spouts. Pumps.

KALAMAZOO RAILWAY SUPPLY CO., Kalamazoo, Mich.—Water tank equipment and supplies.

NATIONAL METER CO., New York.—Water meters for railway tanks and water columns.

OTTO GAS ENGINE WORKS, Chicago.—Water columns, tanks, pumps and complete water station plants. Also water softening system.

AMERICAN WATER SOFTENER CO., Philadelphia, Pa.—The "American" system of treating water at water stations.

BOOTH WATER SOFTENING CO., New York.—The Booth process and apparatus.

KENNICOTT WATER SOFTENER CO., Chicago.—The Kennicott process and reports as to its use.

OTO GAS ENGINE WORKS, Chicago.—The Davidson water softening system.

G. ELECTRICAL.

This section was comparatively small, but if the various electrical apparatus and appliances already mentioned as included in lighting, signaling, car lighting, motive power, etc., are taken into account it will be realized that electricity was a much more important feature of the exhibition than might be gathered from the following list of specialties.

31. ELECTRICAL APPARATUS AND SUPPLIES.

H. P. BROWN, New York.—Electric rail bonds for street railway rails, and for signal circuits on steam railways. A special method of rapidly heating the rail to about 1,200° by the burning of a new chemical composition is one of the importont features.

BRYANT ELECTRIC CO., Bridgeport, Conn.—Electrical fittings.

COOPER-HEWITT ELECTRIC CO., New York.—Mercury vapor lamps and converters for charging storage batteries from alternating-current circuits.

EDISON MFG. CO., New York.—Primary batteries for railway work.

ELECTRIC STORAGE BATTERY CO., Philadelphia, Pa.—Chloride accumulators for car lighting, electric railways, etc.; also electrical apparatus.

ELECTRO-DYNAMIC CO., Bayonne, N. J.—A variable speed motor for speeds of 250 to 1,100 revolutions, and loads from zero to 100% overload.

FAIRBANKS, MORSE & CO., Chicago.—Motors and dynamos for light and power.

GENERAL ELECTRIC CO., Schenectady, N. Y.—Motors for railway and other purposes, multiple-unit train control system, electric lighting, and mercury arc rectifiers.

LORD ELECTRIC CO., Boston, Mass.—Rail bonds.

LORAIN STEEL CO., Philadelphia, Pa.—Electrically welded rail joints.

NATIONAL BATTERY CO., Buffalo, N. Y.—Storage batteries.

NERNST LAMP CO., Pittsburg, Pa.—The Nernst glower lamps.

OTTO GAS ENGINE WORKS, Chicago.—Electric generators and motors.

UNIVERSAL RAILWAY SUPPLY CO., Baltimore, Md.—The Thomas electric rail bond.

WESTINGHOUSE ELECTRIC & MFG. CO., East Pittsburg, Pa.—Electric lighting apparatus, motors for machine tools and traction purposes, rotary converters and oil insulators, and train-control system for electric railways.

H. MISCELLANEOUS.

32. PAINT, OIL AND VARNISH.

ACME WHITE LEAD & COLOR WORKS, Detroit, Mich.—Paints and varnishes for cars, and special Pandect rust preventing paints for steel cars and structural work.

ANGLO-AMERICAN VARNISH CO., Newark, N. J.—Varnish.

BERRY BROTHERS, Detroit, Mich.—Varnish.

CHILTON PAINT CO., New York.—Paints and varnish.

W. H. COE MFG. CO., Providence, R. I.—Gilding and bronzing materials, and gilding wheels.

GALENA SIGNAL OIL CO., Franklin, Pa.—Lubricating and lighting oils.

JOHN LUCAS & CO., Philadelphia, Pa.—Paint, varnish and paint remover.

ALLIS-CHALMERS CO., Dedham, Mass.—Paint and varnish remover.

FRANK S. DE RONDE CO., New York, N. Y.—Varnish remover.

JOHN W. MASURY, 55 Pearl St., Brooklyn, N. Y.—Car and railway paint and varnish.

SHERWIN-WILLIAMS CO., Cleveland, O.—Paint and varnish.

STANDARD PAINT CO., 100 William St., New York.—Ordinary paints and special paints for protecting metals from rust.

W. W. CONVERSE & CO., Palmer, Mass.—Metal cleaning composition.

33. VALVES AND FITTINGS.

L. J. BORDO CO., Philadelphia, Pa.—Valves and train pipe connections.

H. P. BROWN, New York.—Hose couplings.

CRANE CO., Chicago.—Steam and hydraulic valves, unions.

JOHN DAVIS CO., Chicago.—Flexible joints for steam pipe.

FOSTER ENGINEERING CO., Newark, N. J.—Valves, reducing valves, pump governors.

N. L. HAYDEN MFG. CO., Columbus, O.—Relief valves for tank cars, safety valves, metallic packing.

HEGEMAN METALLIC HOSE CO., Chicago.—Couplings for air and steam pipes.

HOMESTEAD VALVE MFG. CO., Pittsburg, Pa.—Valves for locomotives and general work.

JENKINS BROTHERS, New York, N. Y.—Valves and fitting.

LUNKENHEIMER CO., Cincinnati, O.—Valves, cocks, and brass fittings.

MANNING, MAXWELL & MOORE, New York.—Valves, gages, etc.

MASON REGULATOR CO., Boston, Mass.—Regulators and reducing valves.

MORAN FLEXIBLE JOINT CO., Louisville, Ky.—Couplings for air and steam hose.

WESTERN TUBE CO., Kewanee, Ill.—Valves, unions and pipe fittings.

34. RUBBER AND INSULATING GOODS.

PHILIP CAREY MFG. CO., Cincinnati, O.—Magnesia and asbestos goods.

JOHN DAVIS CO., Chicago.—Hose and couplings.

DIAMOND RUBBER CO., Akron, O.—Hose, packing, mats, etc.

GARLOCK PACKING CO., Palmyra, N. Y.—Hose and packing.

HARTFORD RUBBER WORKS CO., Hartford, Conn.—Packing, floor mats, hose, etc.

HOME RUBBER CO., Trenton, N. J.—Hose, packing and general supplies.

JENKINS BROTHERS CO., New York.—Packing, gaskets, pump valves, etc.

H. W. JOHNS-MANVILLE CO., New York.—Rubber and asbestos packing and insulating materials.

MECHANICAL RUBBER CO., Chicago.—General supplies.

MECHANICAL RUBBER WORKS.—Cleveland, O.—General supplies.

NEW YORK BELTING & PACKING CO., 91 Chambers St., New York.—Hose, packing, belting, floor coverings, etc.

PEERLESS RUBBER MFG. CO., 16 Warren St., New York, N. Y.—Hose, packing and general supplies.

G. S. WOOD, Great Northern Building, Chicago.—Hose and preservative coating for rubber hose.

35. PORTLAND CEMENT.

ATLAS PORTLAND CEMENT CO., New York.—"Atlas" brand.

LEHIGH PORTLAND CEMENT CO., Allentown, Pa.—"Lehigh" brand and examples of its use.

36. METALS.

AMERICAN BRAKESHOE & FOUNDRY CO., Mahwah, N. J.—Steel castings.

INTERNATIONAL NICKEL CO., New York.—Nickel, nickel products, nickel steel and alloys.

OLD DOMINION IRON & NAIL WORKS CO., Richmond, Va.—Iron cut nails.

NATIONAL MALLEABLE CASTINGS CO., Cleveland, O.—Malleable iron castings.

PRATT & LETCHWORTH, Buffalo, N. Y.—Steel castings.

RUSSELL, BURDSALL & WARD BOLT & NUT CO., Port Chester, N. Y.—Machine and railway bolts and nuts.

(Other makers of castings, bearing metals, tool steels, etc., are listed under locomotive and car appliances, machinery and track.)

37. PUBLICATIONS.

ENGINEERING NEWS, St. Paul Building, New York.

AMERICAN ENGINEER, New York.

RAILROAD GAZETTE, New York.

RAILWAY AGE, Chicago.

RAILWAY MASTER-MECHANIC, Chicago.

RAILWAY REVIEW, Chicago.

NATIONAL RAILWAY PUBLICATION CO., 24 Park Row, New York.—The Official Railway Guide and timetables.

RAILWAY EQUIPMENT & PUBLICATION CO., New York.—The Pocket List of railway officials, railway equipment register, and list of railway car dimensions and clearances.

RAILWAY LIST CO., Chicago.—Railway guide and list of officers.

MATTHEWS-NORTHRUP WORKS, Buffalo, N. Y.—Samples of timetables and folders.

INTERNATIONAL CORRESPONDENCE SCHOOLS, Scranton, Pa.—Text-books used for instruction in engineering and railway work.

38. OFFICE EQUIPMENT.

SPAULDING PRINT PAPER CO., 44 Federal St., Boston, Mass.—The Federal electric blue-printing apparatus.

WILLIAMS, BROWN & EARLE, 916 Chestnut St., Philadelphia.—Franklin electric blue-printing apparatus, blue-print washers and drying machines.

ART METAL CONSTRUCTION CO., Jamestown, N. Y.—Steel desks, files and office equipment.

MERRITT & CO., Philadelphia, Pa.—Lockers and cabinets of expanded metal.

ELLIOTT-FISHER CO., New York.—Typewriters for books, pay-rolls, billing freight, etc.

UNDERWOOD TYPEWRITER CO., 241 Broadway, New York.—Typewriters.

YETMAN TRANSMITTING TYPEWRITER CO., New York.—Typewriters.

YAWMAN & ERBE MFG. CO., Rochester, N. Y.—Card index and filing systems.

NEWMAN CLOCK CO., Masonic Temple, Chicago.—Time recorders and time keepers, watchmen's clocks.

YALE & TOWNE MFG. CO., New York.—Locks, door checks and builders' hardware.

39. MISCELLANEOUS.

AMERICAN RAILWAY SUPPLY CO., New York.—Metal badges for uniforms.

COLUMBIA FIRE CRACKER CO., Bucyrus, O.—Fuses and torpedoes.

VACUUM CLEANING CO., 72 Trinity Pl., New York.—Carpet cleaning apparatus.

WEST DISINFECTING CO., 9 East 59th St., New York.—Disinfectants and disinfecting appliances.

LOCK JOINT PIPE CO., 346 Broadway, New York.—Concrete sewer pipe, made in semicircular pieces, with horizontal joints.

WATER-WORKS APPLIANCES.—The exhibits at the annual convention of the American Water-Works Association at West Baden, Ind., May 8 to 13, were as follows, the nature of each exhibit being mentioned in those cases where it is not indicated by the name of the company:

H. W. Clark, Mattoon, Ill.; meter boxes.

Central Foundry Co., New York; universal cast iron pipe and fittings.

The Pitometer Co., New York; Cole-Flod pitometer.

A. P. Smith Mfg. Co., Newark, N. J.; water-works supplies.

Ellis-Ford Pipe Cutter Co., Great Falls, Mont.

The National Brass & Metal Co., Minneapolis, Minn.; stop boxes and inverted key curb cocks.

Glauber Brass Mfg. Co., Cleveland, O.; corporation and curb cocks and goose necks.

Modern Iron Works, Quincy, Ill.; curb boxes.

H. Mueller Mfg. Co., Decatur, Ill.; water-works supplies.

Hays Mfg. Co., Erie, Pa.; curb boxes and corporation cocks.

The Sanitary Co., Cleveland, O.; brass work.

Ross Valve Co., Troy, N. Y.; reducing and regulating valves.

Safety Meter Lock Co., Columbus, O.

National Meter Co., New York.

Henry R. Worthington, New York; meters.

Pittsburg Meter Co., East Pittsburg, Pa.

Hersey Mfg. Co., Boston; meters.

Thomson Meter Co., Brooklyn, New York.

Neptune Meter Co., New York.

Union Water Meter Co., Worcester, Mass.

J. S. BILLINGS, Director of the New York Public Library, Astor Library Bldg., 40 Lafayette Place, New York, writes us that the public library is paying particular attention to collecting current trade catalogues and similar publications, and Mr. Billings will be glad to receive catalogues from manufacturers. The collection now numbers over 30,000 pieces and, as fast as possible, is being catalogued and shelved in a way to bring out the names of firms or companies issuing the catalogue and the articles listed therein. The director wishes to secure a satisfactory collection of catalogues of every manufacturer not represented on the shelves to-day, and to secure from each one of these manufacturers and effective assurance that the library shall receive specimens of whatever printed matter he may issue in future. Obviously the value of such a collection cannot be overrated, and obviously its value increases in direct ratio to the increase in the number of pieces from individual manufacturers.

THE MILLER-COLLINS CO., New York, has just been formed by S. Fischer Miller and D. C. Newman Collins, for the purpose of doing a contracting and engineering business, with a complete plant. The company will make a specialty of industrial plants, engineering structures and buildings, and will concentrate on steel-concrete, structural steel and masonry construction. Mr. Miller has been connected with Milliken Bros. and the American Bridge Co., and was Vice-President of the Tide-Water Building Co. Mr. Miller developed early the method of lump sum fee or profit to the contractor, plus cost of labor and materials, now so generally adopted by builders. Among Mr. Collins' more extensive work, he had charge of the structural parts of the Betz Bldg. and Odd Fellows' Hall, Philadelphia; Lawyers' Title Bldg., Clearing House, Siegel-Cooper Bldg., Morgenthau Bldg., Heide Bldg., Commercial Cable and Dunn Bldg., in New York; St. George Hotel, Polhemus Memorial Clinic and Milliken Bros. industrial plant, in Brooklyn. During the past four years Mr. Collins has devoted his time to a private consulting business at 29 Broadway, where he has designed and supervised the erection and completion of such work as the locomotive repair shops for the Lehigh Valley R. R., at Sayre, Pa.; extensive additions to the plant for the Warren Foundry & Machine Co., at Phillipsburg, N. J.; laid out the new plant for the Pneumatic Signal Co., at Rochester; built the erecting shop for the De La Vergne Machine Co., in New York, and the extensive plant for the Lidgerwood Mfg. Co., at Newark. The offices in New York city are: Main office, St. James Bldg., 1133 Broadway; downtown office, 29 Broadway.

THE LOS ANGELES-PACIFIC R. R. CO. has decided to increase the capacity of its central power house at Vineyard and to install an additional sub-station in Los Angeles, Cal. The new electrical equipment has recently been contracted for with the Crocker-Wheeler Co., of Ampere, N. J., through its Pacific Coast managers, the Abner Doble Co., of San Francisco. The contract comprises one 1,200-KW., three-phase, 50-cycle, 2,300-volt, engine-type generator with a speed of 125 r. p. m.; one 300-KW. motor-generator set; one 400-KW. motor-generator set; three 400-KW. transformers; three 160-KW. transformers; three 120-KW. transformers, and a 60-KW. engine-type exciter. The 1,200-KW. alternator will be of the Crocker-Wheeler Co.'s new revolving-field type, similar in construction to the three 4,000-KW. alternators recently ordered by the California Gas & Electric Corporation. The Los Angeles generator will be driven by a 2,000-HP. compound condensing McIntosh & Seymour engine. The motor-generator sets will consist of 2,300-volt synchronous motors driving 600-volt direct-current railway generators. The transformers will be built for 15,000 volts on the primary and 2,300 volts on the secondary and will be of the new water-cooled and oil-insulated type recently brought out by the Crocker-Wheeler Co. The interurban railway system of the Los A.-P. R. R. Co. embraces nearly 200 miles of lines. The President and Manager is E. P. Clark, Los Angeles.

The A. S. CAMERON STEAM PUMP WORKS, foot East 23d St., New York, report among its recent business the following: Over a score of pumps of different sizes and types, but mostly mine pumps, for the Union Iron Works, San Francisco. Three more pumps of large capacity for use in the New York and Brooklyn tunnel at Battery Park, New York, supplied to the Barrett Mfg. Co.; several pumps with removable bushings for pumping tar for the D., L. & W. R. R. in New Jersey; another of their large light service pumps for the Western Tube Co., duplicates of many they have in use; three of their general service pumps of different sizes for McClung & Co., Knoxville, Tenn.; three large pumps for Roy & Titcomb, Nogales, Ariz.; three general service pumps for the Oil Well Supply Co., Bradford, Pa.; a powerful pump of large capacity for the Long Mead Iron Co., for use in their rolling mill; a light service pump of the removable bushing pattern for use in the Navy Yard at Norfolk, Va. Several pumps with removable bushings for the Shakespeare Gold Mine Co., Webwood, Ont., Can., and the Pilling Island Pyrites Co., Pilling Island, Can. A number of boiler feeders and general service pumps for Griffiths & Nathaniels, Poultney, Vt.; Granville Die & Machine Works, Granville, N. Y.; New Soddy Coal Co., Tennessee; H. Channon Co., Chicago; Hullock Milling Co., Hullock, Md.; Dept. of Water Supply, Alexandria, Ind. Over a dozen light pumps were ordered from London for delivery to the west coast of Africa. Six pumps direct to Auckland, N. Z., and special sinking and station pumps to Sté. Anonyme des Mines d'Or de Territo, Brasil, and Cia. Mina. de Penolis, Mapimi, Dgo., Mex.

For other Proposal Advertisements see pages 35, 36, 37, 38, 39, 40, 41 of Advertisements and Construction News page 180.

PROPOSALS FOR SUPPLY OF ELECTRIC POWER AND WATER POWER LOCATIONS.

City of Winnipeg, Man.

The City of Winnipeg invites proposals for the supply of Electric Power upon certain conditions, a copy of which may be obtained upon application at this office, and also proposals from parties who own Water Powers for the sale to the City of such Water Power.

The proposals shall be addressed to Ald. J. W. Cockburn, Chairman of the Special Power Committee, and will be received at the office of the undersigned up to 12 o'clock noon on Monday, June 12, 1905.

ELECTRIC POWER.

The maximum quantity of power to be used at any time will be 1,500 horse-power.

The power is to be delivered to the City at a point to be agreed upon, east of Main Street, and will be paid for by the City monthly, the quantity used will be determined by Watt Meters placed on the City's incoming switchboard. Any party or company tendering for the right or franchise in the City under the conditions herein referred to shall submit with such tender a deposit in cash or marked cheque for $5,000. In case of acceptance of such tender the contractor shall deposit an additional $20,000 within thirty days; said two sums to be retained by the City as security for the completion of the company's works to develop the Water Power and for the works and plant necessary for the transmission of same to the City.

WATER POWER LOCATIONS.

In addition to the above the City will receive proposals from parties who own Water Powers for the sale to the City of such Water Power, such proposals to be accompanied by plans showing the location of such Water Powers and any works of development which may be done upon them.

The City reserves the right to reject any or all tenders or to accept any bid which appears advantageous to the City of Winnipeg.

C. J. BROWN,
City Clerk.

City Clerk's Office,
Winnipeg, Canada, May 13th, 1905. 20-2t

MACADAMIZING.

Oxford, N. Y.

Sealed proposals for macadamizing in the Village of Oxford, N. Y., will be received at the office of M. C. Loomis, Attorney for the Board of Trustees, Oxford, N. Y., until 2 P. M. of the 1st day of June, 1905.

The approximate quantities are as follows:

6,700 Sq. yds. Macadam.
1,100 Cu. yds. Broken Stone.
250 Lin. ft. 8" Vitrified Tile Pipe.
1,000 Lin. ft. 5" Farm Drain Pipe.

A certified check for $500.00 must accompany each bid. A bond in the sum of $2,500.00 will be required for the faithful performance of the contract.

Plans may be seen at the office of the Board of Trustees or the Engineers. Specifications, Forms of Proposals, etc., obtained from the Village Clerk.

JOHN P. DAVIS, Pres.
L. A. KNOTT, Clerk.
MORRISON & FARRINGTON, INC.,
Engineers,
513-514 Dillaye Memorial Bldg.,
20-1t Syracuse, N. Y.

BRICK PAVING.

NOTICE TO CONTRACTORS.

The Burgess and Council of Freeport, Pa., will receive bids for Paving Brick to pave 9,000 sq. yds. streets in said Borough, until Thursday, May 25, 1905, at 1.00 o'clock P. M. Bids will be received on wire cut, repressed, block and hillside block brick. Bids will state price per M. F. O. B. Freeport, and 6 samples of each kind of brick bid on shall be submitted. Address bids to Boro. Clerk or G. B. FINDLEY, Engineer, Freeport, Pa. 20-1t

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U. S. ENGINEER OFFICE, Wilmington, Del., May 11, 1905.—Sealed proposals for dredging in Murderkill River, Del., will be received here until 11 a. m., June 10, 1905, and then opened. Specifications, blank forms, etc., furnished on application. C. A. F. FLAGLER, Capt., Engrs. 20-4t

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U. S. ENGINEER OFFICE, Louisville, Ky., May 15, 1905.—Sealed proposals for steel trestles, etc., for Boule Dam, will be received here until 12 noon, standard central time, June 15, 1905, and then publicly opened. Information furnished on application. H. BURGESS, Capt., Engrs. 20-4t

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WATER WORKS.

Bristol, Vermont.

Sealed proposals w[illegible]e received by the Water Committee of [illegible] Village of Bristol, Vt., until seven o'cloc[illegible] m., Friday, June 2, 1905, for the furnish[illegible]f all material and the construction of a [illegible]ty system of water works for the village [illegible] Bristol. The work consists of the constr[illegible] of an intake reservoir with masonry [illegible] a storage reservoir of half a million gall[illegible]apacity with concrete lining, a delivery [illegible] line about 6 miles long on either four or [illegible]ch pipe, a 10-inch supply pipe and distrib[illegible] system of 4, 6, 8 and 10-inch pipe aggre[illegible]g about 5¼ miles in length. Contracto[illegible] examine ground before bidding. Plans [illegible]pecifications may be seen at the office of [illegible] Water Committee, Bristol, and copies of [illegible]fications and proposal blanks may be ob[illegible]ed from the engineer.

The right is reserved [illegible] reject any or all bids.

Bristol, Vt., May 16, 1[illegible]
LHOYD & MANN,
Engineers.

F. H. PALMER, Chairman,
W. H. CARDELL,
W. A. LAWRENCE,
W. H. BOSWORTH,
F. G. HASKINS,
Water Committee.

20-2t

PUMPING ENGINE.

Woonsocket, R. I.

Sealed proposals for a pumping engine of a capacity of five million gallons, addressed to the Board of Water Commissioners, Woonsocket, R. I., and endorsed "Proposals for Pumping Engine," will be received at the office of said Board until three o'clock P. M., Monday, May 29, 1905. Plans and specifications may be seen at the office of the Board of Water Commissioners or at the office of Dean and Main, 53 State Street, Boston, Mass. The right is reserved to reject any or all bids.

E. W. KENT,
Supt. Water Dept.
F. H. MILLS,
City Engineer. 20-2t

COMMONWEALTH OF MASSACHUSETTS, Charles River Basin Commission.—Sealed proposals will be received at the office of the Charles River Basin Commission, 367 Boylston Street, Boston, Mass., until 2.30 o'clock P. M. of Thursday, June 1st, 1905, for building Section 2 of the Boston Marginal Conduit, requiring about 1,800 linear feet of earth excavation and refill for conduit (7' 8" x 6' 4") and appurtenances; 62,000 linear feet of piles, and 2,700 cubic yards of concrete masonry. Pamphlets containing further information for bidders, forms of proposals, contract and specifications will be mailed to contractors who apply to the Chief Engineer, or may be obtained at his office, 367 Boylston Street, Boston, where also plans may be seen. The printed form must be used in making proposals. The Commission reserves the right to reject any or all proposals and to accept the proposal deemed best for the Commonwealth. HENRY S. PRITCHETT, Chairman; HENRY D. YERXA, JOSHUA B. HOLDEN, Charles River Basin Commission. HIRAM A. MILLER, Chief Engineer. WILLIAM S. YOUNGMAN, Secretary. 20-2t

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WEST POINT, N. Y., May 15, 1905.—Sealed proposals, in duplicate, will be received here until 12 o'clock noon, June 14, 1905, for building materials, plumbing materials, gas and steam fittings, hardware, tools, paints, glass and other miscellaneous stores specified in schedules to be had upon application here. The right is reserved to reject or accept any or all proposals, or any part thereof. Enclose proposals in envelope marked "Proposals for Military Supplies," and addressed Quartermaster, West Point, N. Y. 20-4t

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TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 16, 1905.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 21st day of June, 1905, and then opened, for the construction (including plumbing, heating apparatus, electric wiring and conduits), of the U. S. Post Office at Winston, N. C., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Winston, N. C., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 20-2t

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SEALED PROPOSALS will be received at the office of the Light-House Engineer, Philadelphia, Pa., until 12 o'clock M., June 14, 1905, and then opened, for taking down the skeleton iron tower at the abandoned Port Penn Range Rear Light-Station, Delaware, and erecting it on a new foundation at the Listons Range Rear Light-Station, Delaware, in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Major J. C. SANFORD, Corps of Engineers, U. S. A., Engineer. 20-2t

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SITUATIONS OPEN

WANTED.—Several first-class bridge and structural draftsmen to detail and check shop drawings; state experience, age and salary expected. Address RIVERSIDE BRIDGE CO., Martins Ferry, Ohio. 20-3t